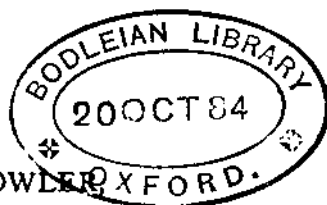


THE
Phrenological Magazine:

A JOURNAL OF
EDUCATION AND MENTAL SCIENCE.

EDITED BY
ALFRED T. STORY,
AUTHOR OF
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THE
Phrenological Magazine.

JANUARY, 1883.

HENRY M. STANLEY.

THE discoverer of Dr. Livingstone has a natural right to a place among the world's front-rank men, and we gladly accord it to him in our Gallery of Celebrities. Mr. Stanley may not possess all the qualities necessary to the making of a great man ; but he possesses all those which are essential for the performance of a great work. Perhaps it may be thought by some that the doer of a great work, if any, is entitled to the name of a great man ; and we are not disposed to quarrel with them for thinking so ; only we reserve to ourselves the privilege to think that there are men essentially great in character to whom it has not been given by Providence to carry out any great work.

However, Mr. Stanley is not one of these. His great good fortune put it in his power to undertake a most important enterprise, and with that modest confidence so characteristic of men of "real grit," he went to work and carried it through.

The portrait we have preferred to give of the subject of this sketch represents the explorer as he was when he started out on his expedition in search of Dr. Livingstone. Since then his hair has grizzled, and the lines in his face have increased and deepened ; otherwise, as we know from personal contact during his recent visit to London, he has not aged much, but, like men generally of good calibre, carries his age and his labours lightly and with ease. That he is able to do so is due to his very compact and condensed organization. He has no surplus material to trouble him. His tone and quality of organization are of the best kind ; one part sustains another with more than ordinary perfectness. Few men are so well balanced throughout. In many ways he may be considered a round man, for he is equal to almost any kind of work. This arises not only from the completeness of the bodily functions and the compactness of the brain, but also from the harmony and balance between the two, which enables him to have excellent control over himself, and to use his powers, both physical and mental, to

the best advantage. He can use his muscles as well as his brain, and takes equal enjoyment in either.

In mind he is alive to all that takes place about him. He is positive in mind and motive; not easily disconcerted in times of danger and emergency; vigour is denoted by every look and word. Will is always the most powerful where there is the highest degree of health and harmony of mental and physical action; hence he possesses the highest degree of will-power. He is very determined, and what he resolves to do he goes at without flinching. His courage is of both the moral and the physical type.

The base of the brain being large, giving a tough hold on life, and the executive powers large, with large Self-Esteem and Firmness, he has great confidence in himself. His ambition is unbounded, but it is an ambition for work and the reward of work, not merely for power and place. Combativeness, Firmness, and Approbativeness, while uniting to give him the desire for success, also give him the will to work for and earn it. His large Hope, combined with his unbounded energy, renders him enterprising and venturesome in the extreme.

The brain is not wanting in height, especially above the ears, which aids greatly to give stability to his character, settledness to his purposes, and power to resist foreign influences. The head is not only broad at the base, but at the top also, especially through and above the temples, which indicates great versatility of talent, strong, vivid, and varied imagination, and enables him to express himself in glowing and even extravagant terms, as well as rendering him very impressible to all surrounding influences and associations. His large Language, as indicated by the fulness of the eye, gives him great power of expression and enables him to speak or write in a free, off-hand manner.

The forehead being well rounded out indicates a full development of all the intellectual faculties. The perceptive powers are well represented, giving him correct powers of observation and great facility in the acquisition of knowledge. His full central brain, from the root of the nose to the top of the forehead, betokens the ability not only to retain knowledge, but to turn it to good account. Hence he is characterized for an eminently practical turn of mind, and for the power to use his experience to the best account. The organs of Order, Calculation, Constructiveness, and Causality give him the power to organize and work according to rule, and to make the most of the means he has at command.

Few men are so peculiarly intuitive in the discernment of

available truth and in correct judgment of character and motives. He has a good appetite and enjoys his food highly. He can eat what comes if necessary; but he has his preferences, and knows what is best for him. To be in and enjoy his society a person needs to conform to him and allow him to be the master-spirit, for he prefers to be the superior wherever he may be; and he has a force of character and a vigour of thought that would naturally bring him to the front in whatever sphere of life he might be placed.

Mr. Stanley, although born in Wales, claims to be an American subject. He went to the States early in life, and,



after various experiences in the West, became connected with the *New York Herald*. As war correspondent for that journal he accompanied the Abyssinian expedition, and took part in other wars, revolutions, and *émeutes* as a chronicler of events from the eye-witness's point of view. On October 16, 1869, being then at Madrid, he received a telegram from Mr. James Gordon Bennett, the then manager, now proprietor, of the *Herald*, desiring him to go to Paris on "important business," the important business being to go and find Livingstone. "Do you really think I can find Dr. Livingstone?" asked the incredulous correspondent. "Do you mean me to go to

Central Africa?" "Yes," was the reply; "I mean you to go and find him wherever you may hear that he is, and to get what news you can of him; and perhaps" (delivering himself thoughtfully and deliberately) "the old man may be in want: take enough with you to help him should he require it. Of course, you will act according to your own plans, and do what you think best—but find Livingstone!"

So the matter was arranged; but before starting for Central Africa, Stanley was to go to the opening of the Suez Canal; then to go up the Nile and find out as much as possible about Baker's expedition, then about starting for Upper Egypt; then to go to Jerusalem and see what Captain Warren was doing there; thence to Constantinople, the Crimea, across the Caucasus to the Caspian, to report on the Russian expedition to Khiva; thence through Persia to India, and so on to Zanzibar, where, finally, he was to equip himself for his search for the lost explorer.

Arriving at Zanzibar, January 6, 1871, Stanley immediately set about making his preparations, and on February 5 was ready to cross over to Bagamoyo, on the mainland. There were still other arrangements to be made, as the hiring of porters, &c., which took up much time; so that it was March 21 before a final start could be made for the interior. For a narrative of the hardships and adventures Mr. Stanley passed through in his memorable journey, the reader must turn to the pages of his book: "How I found Livingstone." Suffice it to say here that, after 236 days' hard travel, exposed to innumerable dangers and vexatious trials, he succeeded in the object of his search, finding Livingstone at Ujiji, on Lake Tanganika, on November 10, 1871. In what condition he found him, and the record of the work he has done, which forms almost the last chapter in his memorable career, everybody knows.

On December 27 Stanley started on his homeward journey accompanied by Dr. Livingstone, whom he was to escort as far as Unyanyembe, where, it was hoped, the Doctor would find his long-delayed supplies. They reached that place on February 18, and on the 14th of the following month Stanley bade farewell to his companion and started *en route* for the coast, reaching Zanzibar on May 7, 1872, and arriving in England towards the end of July.

Stanley's subsequent travels and explorations in Central Africa, first under the auspices of a London and a New York paper, afterwards in the employment of the King of the Belgians, are fresh in the minds of all readers, and need not be further referred to here. He is now in Europe taking rest

after his labours, but intends in a short time to return to the scene of his many triumphs, where, we may hope, he is still destined to do much good work in the cause of civilization and progress.

GEORGE COMBE.

SIR WILLIAM HAMILTON AND PHRENOLOGY.

In April, 1824, Combe was called to London on professional business, and having some leisure at his disposal, he turned it to account in investigating the position of phrenology in the metropolis. He did not find it encouraging. The London Phrenological Society, although only about a year old, had divided after the manner of some minute forms of life, and established two separate centres of activity, the chief one under the conduct of Dr. Elliotson. Among so-called phrenologists he found much pretension, but little accurate knowledge; while, as to the general public, they "did not care a fig for phrenology." Although this state of affairs surprised, it did not dismay him. He set vigorously to work, says his biographer, to place the study of the science on a proper footing. He gave his support to the new society founded by Dr. Elliotson, who was the only person in London that seemed to have any real knowledge of the system as a science. To him and several of his friends he gave instructions for taking developments; he delivered two lectures to the society, and, among others, made a convert of Mr. Wakley, editor of the *Lancet*, who expressed his determination to support the science; also of Mr. Black, editor of the *Morning Chronicle*. He was deeply impressed with the idea of the good he had done by his visit to the metropolis, but feared that "the period of cultivation may prove too limited to ensure an ample harvest."

In August Combe paid a short visit to Ireland, and subsequently published an account of his observations on the country and its people in the *Journal*. His remarks on the phrenology of the Irish are particularly good, and are of especial interest at the present time.

"In travelling westward," he says, "the genuine Irish head appears in Kildare, and prevails in the other parts of Leinster and Munster. It is long, and narrow in proportion to the length. It extends far behind the ear, indicating great Combateness and Philoprogenitiveness. The knowing organs, or superciliary ridge, are large, marking acuteness in direct perception; the forehead slopes rapidly, and the organs of Reflection are small, Benevolence is not deficient, Veneration

is disproportionately large ; Firmness and Conscientiousness, especially the latter, are very generally deficient. Cautiousness is not large, and Secretiveness, although frequently, is not universally predominant. Destructiveness is not so large as Combativeness. Language is much larger than in Scotland. The head is of a fair size. The natural language of this combination of faculties expressed in the countenance and gestures is disagreeable. The look is coarse and unintellectual ; the gait rolling and inelegant. In the neighbourhood of Limerick, and in that town itself, a different race appears, mixed with the aborigines. Their heads are large and broad: Cautiousness, Ideality, Love of Approbation, Firmness, and the reflecting organs are amply developed ; the clear, intelligent look, the upright and graceful walk, with that impressiveness of manner which accompanies mind, are all distinguishable. In some individuals of this race, Ideality and Love of Approbation are so predominant as to produce that illumination of countenance which gives brilliancy to beauty. A colony from Spain is said to have settled in the west of Ireland, and the Spanish head and features are still found in Galway ; Limerick also clearly bears the traces of an imported colony. In the town of Cork the heads of the lower orders are pure Irish, but those of the better rank are mixed."

One of Combe's suggestions for the remedy of Irish discontent, the disestablishment of the Irish Church, has been carried into effect. Combe's advocacy of phrenology was gradually producing a good effect. His lectures, delivered in Edinburgh during the winter of 1824-25, proved the most successful up to that time. Dr. Spurzheim at the same time was attracting attention to the science in London ; phrenological societies were springing up in all the more important towns throughout the country, and in the United States ; and eminent men in all departments of knowledge were becoming adherents of the science. Drs. Otto and Hoppe were warm supporters of phrenology at Copenhagen ; and Dr. G. M. Paterson, who had made a special study of the craniology of the Hindoos, had returned to India with the determination to disseminate the science there.

He was now busily at work on his "System of Phrenology," and in April brought out a second edition of his "Elements." Other, and larger ideas, too, were germinating in his mind. "In this year (1825)," says Mr. Gibbon, "he was tending towards his most hazardous speculations, which finally found expression in the 'Constitution of Man.' The religious doubts which had germinated in his mind as a child began to

take definite form, and, through phrenology, to lead to definite conclusions. The problem which he desired to solve was the reconciliation of Divine Grace with the condition of man. This was a bolder step than his adoption of phrenology." His first public declaration of his theories as to the constitution of man were contained in an essay on "Human Responsibility as Affected by Phrenology," read before the Phrenological Society in February, 1826. The majority of the members of the Society either acquiesced in the views Mr. Combe advanced, or were silent. But when, a year later, those views were developed in his first essay on the "Constitution of Man," "bewilderment, horror, and indignation, took possession of many of his best friends," and earnest appeals were made to him to suppress the whole series "as subversive of Christianity and false to phrenology."

Among those who condemned the essay was Mr. William Scott, whom Combe regarded as one of the ablest advocates of phrenology. Writing to him in reply to his appeal that the essay should be withdrawn from circulation, Combe said: "Most readily do I agree to withdraw my paper when you request me to do so. For six months, then, or probably more, it shall not again raise its head. But, unless I hear something more cogent against it than has yet been brought forward, I shall look to the day when I shall bring it out, expanded and applied, in my own name and at my own responsibility."

Although he weighed with much deliberation the objections made to his view of human responsibility, his convictions remained unchanged; and, accordingly, the first draft of his "Essay on the Constitution of Man in its Relation to External Objects" formed the substance of the concluding lectures of the course he delivered in the winter of 1826-27. "This essay," says his biographer, "created still greater excitement than the previous one, for in it the doctrine, which was so offensive to many thoughtful men, was elaborated into a system." In view of the storm it had raised, Combe took the prudent course of only printing a few copies for private circulation, and distributed them among those friends whose opinions he esteemed, asking them for a free expression of their opinions thereon.

Combe disclaimed any originality of conception in the essay, except in so far as it indicated for the first time in a systematic way, the relations subsisting betwixt the natural laws and man's bodily constitution; and stated that the idea of the work had been suggested to him by the perusal, in 1824, of an essay in manuscript by Spurzheim, afterwards

published under the title of "A Sketch of the Natural Laws of Man." He had desired his friends to look upon the essay as a strictly private communication, and to address any remarks they might have to make upon it to him personally; he was, therefore, surprised when he discovered that Mr. Scott had printed a pamphlet of eighty-one pages, reviewing the essay, and distributed among the members of the Phrenological Society. Combe answered the attack in another pamphlet, citing as authorities for his views of the natural laws, Dugald Stewart, Montesquieu, Blackstone, Paley, and others. This brought out a second pamphlet from Mr. Scott, in which he maintained the standpoint he had taken, that Combe's leading opinions on the natural laws were "fundamentally erroneous, and contrary both to sound natural reason and to sound Scriptural doctrine." The discussion, however, failed to modify Combe's views, and he proceeded to prepare the essay for publication.

In October, 1825, the second edition of Combe's "System of Phrenology" was published, forming an octavo volume of 566 closely printed pages. At first it seemed to attract little attention, and sold slowly; but early in 1826 it was rumoured that Jeffery was going to review it in the *Edinburgh*, and in the September number it duly appeared. It was an elaborate exposition of the current views antagonistic to phrenology, but treated Combe with considerable respect. Combe replied to the attack in an article which he issued first in a pamphlet and then reprinted in the *Phrenological Journal* (October, 1826). Jeffery made a rejoinder in the December *Review*, to which Combe replied in the February *Journal* (1827), which closed the discussion.

But Jeffery's attack was but the prelude to a more important discussion which was impending. In 1826 Sir William Hamilton, the celebrated metaphysician, delivered an address in refutation of phrenology before the Royal Society of Edinburgh; and in 1827 followed it up by a second address on the same subject. The rules of the Royal Society precluding any reply to the arguments he advanced, the phrenologists called on him to publish his addresses in order that they might weigh and answer his assertions. This, however, he did not do. In April, 1827, it was announced that Sir William would deliver a popular lecture against phrenology in the University, for the benefit of the distressed operatives. Combe wrote to him asking permission to make a reply at the conclusion of the lecture; or, if that should not be agreeable, he solicited his assistance in procuring the use of a class-room in the University for a separate lecture, on a

subsequent day, also for the benefit of the operatives. Sir William expressed his willingness to agree to either request ; but the University authorities refused to give their permission for either course, on the ground that Mr. Combe, not being a member of the *Senatus Academicus*, he was not entitled to lecture within the University.

At the request of the Committee for the relief of the distressed operatives, Combe delivered a lecture on phrenology in the Assembly Rooms, George Street, by which a considerable sum was realized. Professor Syme, Lecturer on Anatomy and Surgery, who was not a phrenologist, lent the lecturer all his open skulls, and these, with all the open skulls belonging to the Phrenological Society, were made use of in demonstrating the truth of phrenology. Sir William Hamilton was present. His chief objections to the science were based on the existence of the frontal sinus, and the obstacles it offered to the possibility of the truth of the doctrine of phrenology in regard to at least half-a-dozen of the organs of the intellect. Referring to his treatment of this point in the lecture, Combe says :—

“By using Mr. Syme's specimens the charge of selection was obviated ; and by producing all of them no room was left for suspecting intentional omission of any ; while at the same time an opportunity was afforded of contrasting them with the phrenological collection, and of detecting any partiality in the latter, if it existed. The result I maintained was that, while organs were found to differ in size to the extent of an inch or upwards, the departures from parallelism in the tables of the skull did not, in general, exceed one-tenth or one-eighth of an inch ; that in childhood the sinus did not exist ; that after puberty it was generally present to a limited extent, so as to throw a difficulty in the way of observing the development of the organs of Lower Individuality and Size ; and that in old age and disease (both of these states excluded from the sphere of phrenological observation), it was occasionally met with very large. I exhibited skulls of all ages, from birth to the decline of life, *sawed completely open*, and showed examples of the sinus in all the above stages ; in one skull it was very large, but accompanied with striking and indisputable marks of disease ; in another, also, it was very extensive, but it had belonged to a soldier who had committed suicide from disease.”

After a great deal of controversial correspondence the opponents agreed, on the proposal of Sir William Hamilton, to refer the questions of fact in their discussion to the decision of three gentlemen competent to act as judges in the

matter. Combe protested, however, that it was an unphilosophical course to adopt. He consented to such reference, not because he approved of its fitness, but because Sir William had not afforded him a better mode of meeting his arguments. He had all along insisted that the proper way of conducting the discussion was for his opponent to publish his objections (which he had been repeatedly asked to do), and that the phrenologists should either admit their validity, or furnish an answer to them. Sir William Hamilton named Dr. Christison, Professor of Medical Jurisprudence, to act on his behalf; Combe desired Dr. John Scott to act for him, and these two nominated Professor Syme as the third arbiter. At their first meeting, held in July, an attempt was made to arrange the issues to be settled regarding the frontal sinuses. Sir William Hamilton had written out fourteen propositions of the phrenologists' and fourteen counter-propositions of his own; but the former propositions were either so erroneously stated, or so entirely opposite to the real principles of phrenology, that Combe and his friends at once repudiated them. Sir William proceeded to establish his statements by the production of a set of skulls from the University, which he held to be good phrenological specimens because they had been selected by Spurzheim. Combe objected to them because, having been chosen (from the Catacombs in Paris) as examples of extreme developments of particular organs (many of them were "monstrosities"), and, moreover, their history and, in many cases, the sex being unknown, they could not be regarded as average specimens of crania. The arbiters sustained his objection. At a second meeting the arbiters decided that instead of examining skulls, the history of which was unknown, and which could not always be cut open to the requisite extent, they would attend the pathological dissections at the Infirmary and Fever Hospital; by which means they hoped to procure, in a few months, a sufficient number of accurate facts for deciding the points at issue between the disputants.

Sir William Hamilton had declared in his correspondence that it was the doctrine of Gall and Spurzheim he had determined to extinguish, and he would not regard the modifications of their disciples as at all affecting his argument. Combe therefore proposed that Spurzheim (who was to be in Edinburgh in January, 1828) should take his place before the arbiters; but Sir William would not consent. After Spurzheim's first lecture in Edinburgh, however, he published a long letter in the *Caledonian Mercury* contradicting statements he understood the lecturer to have made, repeating the propositions he

had previously put forth, and condemning phrenology on philosophical, physiological, and religious grounds. Spurzheim and Combe replied; the former challenging him to a public controversy. Sir William accepted the challenge, but required Spurzheim to name competent umpires. The latter asked Sir William to name the day on which he would meet him; to which he replied, repeating his request in respect to umpires. In the end the meeting did not come off. Spurzheim had arranged a course of lectures in Glasgow; and because he was determined to fulfil his engagement, he was accused by the anti-phrenologists of fleeing from the field, although he had repeatedly stated, in asking for a day for the meeting to be named, that he had such an engagement, and after he had finished in Glasgow he returned to Edinburgh. But the fact appears to be that, while he maintained the courage of his opinions in private, Sir William Hamilton was of so nervous and retiring a disposition, and therefore so little fitted to hold a public discussion, that he was probably glad to get out of the difficulty at the cost of a little disingenuousness.

The result was that the discussion again devolved upon Combe. But no good came of it. Sir William accused the latter of substituting personalities for argument; but in truth he himself was the greater sinner in this respect. No one can read the correspondence, which will be found entire in the fourth and fifth volumes of the *Phrenological Journal*, without noticing the courteous manner and tone of Combe's letters, while acknowledging Sir William's undoubted advantages in regard to lucidity and style.

The questions at issue, however, remained undetermined, and both phrenologists and anti-phrenologists claimed the victory. Sir William made many assertions, which Combe asked him to prove before the arbiters as he had undertaken to do. But, as Combe remarked, their brains were cast in such different moulds that there was no hope of their ever understanding each other. Combe also remarked that his opponent persisted in referring to the old editions of Spurzheim's works (1815) and would take no note of the alterations and modifications which had been introduced into the later editions; although, in a new science like phrenology, alterations were inevitable as experience widened; whilst the fundamental principles, that the brain is the organ of mind, that the brain is an aggregate of several parts, each manifesting a distinct mental faculty, and that the size of the cerebral organ is, *cæteris paribus*, an index of its power, remained the same.

THE STUDY OF PHRENOLOGY MADE EASY.

CHAPTER IV.

Benevolence is a very important faculty and is very liable to be wrongly exercised, especially in England, where beggars get rich and make a good living. Human Nature (a better name is Intuition) is located in front of Benevolence at the bend of the forehead, and, when large, gives a ridge in that part. It is quite essential to the practical phrenologist, teacher, doctor, and preacher.

Eventuality is in the central portion of the forehead, and, when small, there will be a hollow, and, when large, a full rounding out of the same place; it is generally large in children. Its function is to give a sense of action, experiment, performance and consciousness of what is going on around one, and what is taking place in the outside world. It gives a fondness for history and the news of the day. When large, persons can recall knowledge previously gained, can entertain others with anecdotes and past experiences. It aids much in long recitations, musical performances, and in theatrical displays. It aids to give the details of an occurrence.

Below it is Individuality, at the root of the nose, the first faculty in the central forehead which identifies physical objects and takes delight in seeing persons and things. When large, it is always on the look out. Confinement in the dark is death to this faculty. When very large, as in Darwin or Elihu Burritt, it gives great prominence between and just above the eyebrows. Comparison is directly above Eventuality and below Human Nature or Intuition. It gives a round fullness when large, and a flatness when small. Its function is to compare, infer, and analyze; it sees the fitness of things and the application of truth. On each side and next to Eventuality is Locality, giving cognizance of place, local memory, and is gratified by travelling. It was very large in Captain Cook.

Causality is on each side of Comparison, and, when large, gives squareness to the upper part of the forehead. When small, the forehead is round and narrow at this point. The action of the faculty searches into causes, wants to know the origin and beginning as well as the course of things. It gives the power to account for things; to think, plan, and know how to do things; it supplies general judgment, comprehensiveness of mind, aids one to see into remote causes, and gives forethought, and is one of the most important faculties of the mind. The monkey has but little of it. Combined

with the moral organs, it leads to the investigation of law, theology, and mental philosophy ; with Constructiveness and the perceptive faculties it investigates mechanical laws and the principles of astronomy, hereditary descent, and language. It inclines one to think what thought is, and how the mind acts through the use of the brain.

Form is located at the beginning of the eyebrow, at the root of the nose, the lowest portion of brain between the eyes, and gives width from eye to eye. It takes cognizance of shape, outline, and expression. Calculation is situated at the other end of the eyebrow, and gives width across the lower portion of the forehead ; the larger the organ the more extended is the eyebrow towards the ear. When small, the narrower is the forehead, the shorter the eyebrow.

The faculty of Calculation gives cognizance of numbers and their relation to each other, to calculate and estimate in figures, whether in astronomy, in mathematics, or in business. Some are exceedingly expert in figures, which is a great aid in business, while others are almost idiotic in figures and cannot make an estimate.

Next to Calculation is Order, on the corner of the forehead over the outer corner of the eye. When large, it gives prominence to this corner, and when small there will be a flatness at the point. This faculty gives a sense of arrangement, method, system, and exactness as to plan and mode of doing things. It is manifested in habits and general modes of doing things.

Size is located next to Form, and gives development in the inner corner of the eye. Its function is sense of proportion and fitness ; it measures by the eye and sees the perspective in the picture or the landscape. It is an important element in mathematics, surveying, civil engineering, and mechanics.

Weight is next outside of Size in the arch of the eyebrow, and gives thickness and a prominence to the eyebrow in that locality. The faculty gives sense of gravity and ability to estimate force and resistance in bodily movements ; it helps to keep the balance and to judge of the force necessary to overcome a certain amount of resistance. It aids in walking, riding, dancing, shooting, as well as in machinery. Colour, between Weight and Order, is adapted to the existence of colours in nature. The perception of colours is also affected somewhat by the power of the eye to receive rays of light. The more rays of light the eye can take in in the shortest space of time, the more distinctly the colours can be seen, and the greater the pleasure in seeing them.

The organ of Colour is not easily discerned, especially

where there is a heavy arch to the eyebrows, in consequence of a marked development of the osseous system. The largeness of the frontal lobe, together with its length and fulness around the eyes, determines the power of the perceptive faculties.

Directly back of the top of the ear, about two inches, Combativeness is located. Its function is force, courage, resistance, defence ; the lower part of the organ, acting with a strong muscular bony structure, gives a spirit of defiance, as frequently seen among animals and low-bred men. When large, it gives width to the back of the head and a prominence to the organ ; generally large among backwoods-men, frontiersmen, explorers, and hunters. Its perversion leads to quarrelling and fighting. Its deficiency leads to irresolution and cowardice. Having once learned its location, the other organs around and joining it are easily found by the aid of a marked bust or skull.

Alimentiveness is located in the middle lobe in front of the ear, from the opening of the ear to the top of it, and gives sense of hunger and thirst. The back part gives the desire to eat solid food ; the front part a partiality for liquids. Above the ears is the organ of Destructiveness, giving width between the ears and a rounding out of the head in that locality. The forepart of the organ joined to Alimentiveness gives the capacity to take life and shed blood ; the back part gives efficiency in business, speech, and general character.

Acquisitiveness is situate directly above Alimentiveness and next to it on the centre of the side head. It manifests itself in three different ways ; the front part adjoining Constructiveness gives a disposition to acquire and make property by mechanical and other means, a desire to possess and have what can be claimed as one's own ; there is no satisfying the faculty when large and active : as Alexander, who wanted another world to conquer, it would want another world to possess. Some men show the faculty by wanting to do all the business, own all the railroads and telegraphs, and do all the manufacturing. The central lower portion of the organ gives a desire to economize, save, and provide for future wants. The back portion of the organ joined to Secretiveness gives a desire to hoard, keep, lay away in some sure, safe, or secret place known only to the possessor.

In front of Acquisitiveness is Constructiveness, which is situated in the centre of the temporal bone, and gives width between the temples. It gives ingenuity, contrivance, and versatility of design. When it acts with the organ in the rear it gives contrivance in business ; with the organs above it

gives artistic conceptions ; with the organs in front it gives musical and mechanical dexterity.

In front is Music, or Tune, and above is Ideality. In front of Ideality is Mirthfulness, and back of Ideality is Sublimity, next to Cautiousness. In front of Spirituality is Imitation, on each side of Benevolence, and in front of the top head, forward, is Agreeableness, on each side of Intuition, or Human Nature. Time is between Tune and Locality, below Causality and above Colour.

Amativeness is located in the cerebellum, on a level with the opening of the ear. Directly in front of it, at the base of the cerebrum, is Vitativeness, or Love of Life, and directly above Amativeness is Conjugality. Above Conjugality is Friendship, laterally of Continuity and Inhabitiveness. The location of the organs are the same relatively on both sides of the head, but on phrenological busts one side is used to show the location of the organs, and the other to show their classification.

HISTORY OF A CO-OPERATIVE FARM.

Any man who does something towards effecting a practical solution of what we all thoroughly understand as the Labour Question, is not only a benefactor to the race, but, in the best sense of the term, a hero. Such a man has just given to the world the history of an effort of this kind. Probably to most people of the present generation, even including those who take special interest in questions affecting land, Ralahine is an unknown name. They may have heard of it in connection with co-operative farming, but have forgotten it. As to the history of the farm, or of the details of the system practised there, they know nothing. Fifty years ago, however, the experiment tried at Ralahine attracted the attention of social reformers and politicians all over the world, and nothing but its premature collapse, from a cause altogether independent of its merits, prevented it becoming a standing exemplar for wide-spread imitation. The lack of general information on this important subject justifies the publication of "The History of Ralahine and Co-operative Farming,"* by Mr. E. T. Craig, formerly secretary to the organization, and originator of the system adopted, who originally described his system and its working in the pages of the *Co-operative News*.

In stating the causes which led to the attempt to apply co-operative principles to an Irish farm, Mr. Craig draws a

* Messrs. Trübner & Co., Ludgate Hill.

terrible picture of the state of Ireland in 1830. The population amounted to seven and a half millions; in the south and west crops had failed, tenants were evicted by wholesale; tillage land was converted to pasture, so that a herdsman and boy could supersede twenty labourers; rents were enormous, and famine and outrages were shockingly prevalent. "The rents of con-acre," says Mr. Craig, "were both enormous and unfair, from the fact that the poor tenant supplied the manure for the potato crop while the landlord took the benefit in grain crops subsequently sown. Rents were demanded at eight, ten, and in some cases fourteen pounds per acre (presumably Irish). If the tenant could raise a sufficient crop of potatoes to pay the rent and sustain his family, he considered himself fortunate. In many cases the crops were taken to the market attended by the agents, and the proceeds handed to them in payment of rent, while the slave of toil returned home empty-handed, with the galling knowledge that the fruits of his labour were taken by another, who was perhaps the representative of an absentee. In bad seasons famine soon became prevalent. The labourer and his family under such circumstances were doomed to want and starvation. Peace and order under such circumstances were impossible. Coercion Bills, Arms Bills, an armed police force, and a large proportion of the British army might make a solitude; but that would not make peace, order, and contentment. Under the conditions indicated many perished in silence, while thousands, alike ignorant of the causes of their misery and of the remedy, banded together in the vain hope of finding a cure for their sorrows by striking terror into the great landlords, their agents, and the Government. They saw no way of life and existence for them save through the meshes of crime and the bloody portals of force, violence, and murder."

Such was the state of things that many landlords fled in terror; 20,000 persons in the West of Ireland were in want of food, and it was found necessary to vote £50,000 from the State funds to relieve the starving by finding them employment in making roads. The outrages of the "Whitefeet," "Lady Clare Boys," and "Terry Alts" (labourers) far exceeded those of recent occurrence; yet no remedy but force was attempted, except by one Irish landlord, Mr. John Scott Vandeleur, of Ralahine, county Clare, late high sheriff of his county. Early in 1831 his family had been obliged to take flight, in charge of an armed police force, and his steward had been murdered by one of the labourers, who had been chosen by lot at a meeting held to decide who should perpetrate the

deed. Mr. Vandeleur came to England to seek someone who would aid him in organizing the labourers into an agricultural and manufacturing association, to be conducted on co-operative principles, and he was recommended to Mr. Craig, who, at great sacrifice of his position and prospects, consented to give his services.

No one but a man with something of the heroic strain in his composition would have attempted so apparently hopeless a task as that which Mr. Craig undertook. Both the men whom he had to manage—the "Terry Alts" who had murdered their master's steward—and their surroundings were as little calculated to give confidence in the success of the scheme as they could well be. The men spoke generally the Irish language, which Mr. Craig did not understand, and they looked upon him with suspicion as one sent to worm out of them the secret of the murder recently committed. He was consequently treated with coldness, and worse than that. On one occasion the outline of his grave was cut out of the pasture near his dwelling, and he carried his life in his hand. After a time, however, he won the confidence of these men, rendered savage as they had been by ill-treatment.

The farm was let by Mr. Vandeleur at a fixed rent, to be paid in fixed quantities of farm produce, which, at the prices ruling in 1830-31, would bring in £900, which included interest on buildings, machinery, and live stock provided by Mr. Vandeleur. The rent alone was £700. As the farm consisted of 618 acres, only 268 of which were under tillage, the rent was a very high one—a fact which was acknowledged by the landlord. All profits, after payment of rent and interest, belonged to the members, divisible at the end of the year if wished. They started a co-operative store to supply themselves with food and clothing, and the estate was managed by a committee of the members, who paid every male and female member wages for their labour in labour-notes, which were exchangeable at the store for goods or cash. Intoxicating drink and tobacco were prohibited. The members worked the land partly as kitchen garden and fruit orchards, and partly as dairy farm, stall feeding being encouraged, and root crops grown for the cattle. Pigs, poultry, &c., were reared. Wages at the time were only eightpence per day for men, and fivepence for women, and the members were paid at these rates. Yet, as they lived chiefly on potatoes and milk produced on the farm, which, as well as mutton and pork, were sold to them at very low rates, they saved money. Their health and appearance quickly improved; so much so that, with disease raging around them, there was no

case of death or serious illness among them while the experiment lasted. The single men lived together in a large building, the families in cottages.

Assisted by his wife, Mr. Craig conducted the education of the young on the most enlightened principles, being, as he was, a practical phrenologist, and thoroughly imbued with the importance of a knowledge of the constitution of children, mentally and physically, to those who would train them properly. Hence the physical and moral, as well as the intellectual development of the young was carefully attended to. Sanitary arrangements were in a high state of perfection. Indeed, in all these respects, Mr. Craig was ahead of his time, and it will probably be generations before the mass of the people will be able to adopt the principles he has so successfully taught and applied.

The "New System," as the Ralahine experiment was termed, though at first regarded, as was natural, with aversion and suspicion, quickly gained favour in the district, and outsiders were anxious to become members of the association. In January, 1832, the community consisted of fifty adults and seventeen children; the total number afterwards increasing to eighty-one. Everything was prosperous, and the members were not only benefited themselves, but their improvement exercised a beneficent influence upon the people in their neighbourhood. The interest given the members in the success of the experiment awakened the zeal and intelligence of the producers in a way that nothing else could.

It was hoped that other landlords would imitate the example of Mr. Vandeleur, especially as the experiment was greatly profitable to himself, as well as calculated to produce peace and contentment in disturbed Ireland. Just when these hopes were raised to their highest degree of expectancy, the happy community at Ralahine was broken up through the ruin and flight of Mr. Vandeleur, who had lost his property by gambling. Everything was sold off, and the labour-notes saved by the members would have been worthless had not Mr. Craig, with noble self-sacrifice, redeemed them out of his own pocket.

"The arrangements," says a writer in the *Mark Lane Express*, "were in most respects admirable, and reflected the greatest credit upon Mr. Craig as an organizer and administrator. To his wisdom, energy, tact, and forbearance the success of his experiment was in great measure due, and it is greatly to be regretted that he was not in a position to repeat the attempt under more favourable circumstances. The collapse of the undertaking illustrates its chief weak points,

which were that it was carried out under the paternal system, and that there was no security either of tenure or for improvements. With such security, the capital lent by Mr. Vandeleur might have been obtained from some other source when it had to be paid back to his creditors. There never was a more striking instance of the folly of basing a commercial undertaking on mere confidence in a good landlord than was supplied by the unfortunate collapse of the at one time prosperous Ralahine undertaking."

Mr. Craig's comparison of co-operative farming with peasant proprietorship is particularly interesting, and his description of the state of Ireland fifty years ago is as telling as anything that has been written. Why he should have delayed the publication of this most important contribution to the solution of the great labour question it is difficult to say; but it should be a consolation to him in his declining years to be able to add his mite to the re-awakening of general interest in the work which he did so well in his early manhood.

We cannot do better than recommend our readers to procure a copy of Mr. Craig's book, the price of which is half-a-crown, and give it a thorough perusal. If they do not find it as fascinating as Hawthorn's "Blithedale Romance," with which it is compared by one critic, they will find it much more useful and instructive.

THE ORIGIN OF THE ORGAN OF HUMAN NATURE.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

Sir,—In last November's number of this magazine there is a criticism upon an article which appeared just twelve months before by the present writer, the critic being Mr. H. McKellan; and upon this criticism I should like to make a few observations.

In the first place, I am afraid that it is of little use my arguing with Mr. McKellan, because he has taken an exactly opposite standpoint to mine and cannot, it seems, see things in the same light in which I see them. Let us, however, try to stand on neutral ground and judge impartially, without being blinded by any feeling for or against the theory of evolution.

Mr. McKellan first of all quotes my argument in favour of Human Nature being derived from Comparison, and then says: "Mr. G. tells us that the branching off of the organ of Human Nature from Comparison is confirmed by its locality

to Comparison, and he also tells us, 'It is confirmed by the division of the organ which is made by L. N. Fowler in his new bust.' How the juxtaposition of the organ of Human Nature to Comparison confirms the idea that it branched off from Comparison and became a separate organ, is a hard thing for a simple mind to understand. And how the same idea is confirmed by the division of the organ is beyond human ken." Indeed! This is a most astonishing assertion. If Mr. McKellan had a favourite tree in his garden and it produced a branch which became rooted in the ground and then separated from its parent tree—a process which actually occurs in some plants—where would Mr. McKellan expect to find the new tree? Half-a-mile away, in somebody else's garden, or close beside its parent tree?

Mr. McKellan takes hold of my argument and reverses it, and thus makes me say what I never said. I did not affirm that because of the juxtaposition of Human Nature to Comparison, Human Nature was therefore derived from Comparison. I, first of all, reasoned my way *à priori* to this conclusion, and then turned to see if the theory were confirmed by the facts; and I found that this was the case. Had I gone to work in the opposite way, then Mr. McKellan would be justified in remarking that he might as well say that "because of the juxtaposition of Conscientiousness to Firmness, it proves that Firmness branched off from Conscientiousness, or *vice versa*," as for Mr. G. to say that because of the juxtaposition of Human Nature to Comparison, it confirms the idea that the one branched off from the other." He evidently attaches a more absolute meaning to the word "confirm" than I did. I ought, perhaps, to have rendered this clearer originally by saying that the above quoted fact was a slight (not an absolute) confirmation, or was "evidence in favour" of the theory. As a matter of fact, I think that Conscientiousness may possibly have had its origin from Cautiousness through Approbateness; and I have a reason for thinking thus, and the thought was not suggested to me by the juxtaposition of the organs. But of this, perhaps, hereafter.

In my original article I came to the conclusion that possibly Human Nature and Comparison were primitively identical. If so, then the division occurred probably in this manner. The organs of the brain are composed of the grey matter of the brain, and this is composed of innumerable minute cells. Certain of these cells, then, originally performed the functions of the two organs combined. But, as Human Nature became more and more distinct, the protoplasm in these cells would become divided into two portions; so that, to take any one

cell, there would be one portion of protoplasm performing the function of Comparison, and one portion performing the function of Human Nature. This cell would then divide into two fresh ones (physiological division of labour, which we find all through creation), one belonging to Human Nature and the other to Comparison. Now, could these two sets of cells possibly be anywhere than next to and partially intermingled with one another? Now, when we find that, at the present day, the two organs we are discussing are next to one another, is not this a slight evidence in favour of the theory I tried to explain? Bastian, in his "Brain as an Organ of Mind," gives it as his opinion that the cells pertaining to any one given function of the brain are more or less intermingled with the cells performing different offices: but here and there, perhaps (he thinks), the cells pertaining to any one function may be gathered together in sufficient number in one spot to justify our calling that spot a centre of energy for that function.

"The adding to, or subtracting from, Human Nature one faculty would alter human nature, and this alteration cannot be pointed to in the history of mankind. . . . Mr. G. is, therefore, guilty of making this assertion without any authority. . . . This quotation plainly shows that Mr. G. believes there was a time when man was without the organ of Human Nature." This is a misunderstanding, and will be explained when I say that it is probable that the organ originated in the lower animals and was communicated to man in his descent from them. It is certain that the monkeys of the present day possess both Human Nature and the reasoning organs in a fair state of development. The common progenitor of man and the monkeys must, then, have possessed these organs and have communicated them by one line of descent to man, and in the other line to the monkeys. I must also say that I did not make any "assertion," even "by implication." I presented the theory as showing the way in which the organ *may, perhaps*, have been produced, not, *has been* produced.

I said that the man, in the original illustration, would come to the conclusion that such and such a facial expression was the sign of such and such a mental characteristic; and the second time he saw the expression he would come to the conclusion more easily; that is, he would have a slight tendency to come to this conclusion, as also would his descendants afterwards. Mr. McKellan smiles at this "tendency" in the children to come to the same conclusion, and calls it an absurdity. "Tendency is a wonderful power in Mr. G.'s estimation." It is a wonderful *fact*. For this "tendency" is

nothing less than hereditary influence. Does Mr. McKellan, as a phrenologist, deny that the mind of a parent has any hereditary influence on the mind of the child? If he does, then I refer him to Galton's "Hereditary Genius." To deny this is to deny the conservation of energy, and this is absurd.

Mr. McKellan quotes Mr. Vago: "From this principle it is assumed that a faculty is *not created* by the conditions that favour its development." I did not say that it was. My meaning was rather that Human Nature was *separated off*.

It is impossible to tell at what point in the animal series it was created, because we do not know at what point (if any) the presence of the organ, in some degree or other, ceases.

Concerning Mr. McKellan's syllogism:—"The organ of Human Nature comes from Comparison. The lower animals have the organ of Human Nature: therefore the lower animals have the organ of Comparison." (By the way, *must at one time have had*, would be more correct.) "Now, this conclusion is altogether unwarrantable from facts." I defy Mr. McKellan to prove that facts do not warrant this conclusion. It is true that the convolution of the brain in which Comparison is supposed to be located is not present in many lower animals; and many brains are even without any convolutions; but in every case there is grey matter present, covering the exterior of the brain; and it is impossible for Mr. McKellan to prove that because any given convolution does not make itself visible on the surface of the brain as a fold, that therefore the grey matter of that convolution is absent entirely. I have plenty of authority in this case; for the majority of scientific men will admit that it is probable that animals possess reasoning powers, although imperfectly developed; the difference between them and man being one of degree rather than of kind.* Mr. McKellan also denies to animals the possession of the moral and spiritual organs. Now, hear the following:†—"There is no evidence that man was aboriginally endowed with the ennobling belief in the existence of an omnipotent God. On the contrary, there is ample evidence, derived not from hasty travellers, but from men who have long resided with savages, that numerous races have existed and still exist, who have no idea of one or more gods, and who have no words in their language to express such an idea. (See, for further facts, Rev. F. W. Farrar, *Anthropological Review*, Aug. 1864, p. 217; Sir J. Lubbock, 'Prehistoric Times,'

* See Romane's "Animal Intelligence;" Lubbock's "Ants, Bees, and Wasps;" Darwin's "Descent of Man," Vol. I.

† Darwin's "Descent of Man," Vol. I., p. 65.

2nd edit. 1869, p. 564 ; especially the chapters on religion in his 'Origin of Civilization,' 1870.)" I do not suppose that in this case Mr. McKellan would assert that these savages are totally destitute of the organ or organs through which most men gain their ideas of a God and a future state : I should not. Therefore, why should he deny the possession of the reasoning and other organs to animals, because their action is obscure and not evident sometimes ?

" If a person's moral faculties are weak, he cannot judge of anything morally : he ought not to be heard on any moral question whatever." Remember, Conscientiousness is an instinctive organ, just as much as Human Nature. Suppose a man to exist entirely devoid of Conscientiousness, if possible ; then that man, although he would have no "inner voice," no instinctive knowledge of right and wrong, would be quite able by means of his intellect to say if any given action were right or wrong. If he were asked whether it were right to rob him of his money for no cause, what would he answer ? If he were asked whether it were right to hang every man, not for murder, but for some trifling boyish fault, what would be his answer ? Of course, his answers would be affected by the extent of his knowledge and his surrounding conditions, but there is little doubt but that he would be able to answer correctly. There is a difference between an instinctive and a rational knowledge of right and wrong.

" This supposed organ of Human Nature will never enable us to understand the function of an organ we are deficient in." Mr. McKellan is rather hazy as to the function of the organ. It does not enable us to understand the function of any organ. It acts instinctively, not intellectually, and thus far it has degenerated from its parent. It gives an intuitive perception of the character of a person, but not an intuitive perception of the function of any organ. Take the case of the man, used in the preceding paragraph. Suppose him to be required to place a large sum of money, without security, in the hands of another man ; and let him be compelled to choose between two men unknown to him, and to act on the spur of the moment. Now, we are sure that the supposititious organ of Human Nature will be brought into play : but Mr. McKellan, denying its existence, will say, that since the man is destitute of Conscientiousness, this organ in the other men will awake no response in his mind, and he will be as likely to choose rightly as wrongly. If not only the man but also all his progenitors were destitute of the organ, then I agree to this view. But if his progenitors did possess this organ, then there will have been plenty of

time for Human Nature to become acquainted, if I may use such a term, with the language of the organ, in the manner shown in my original illustrations; and there will be more chance of his choosing rightly than wrongly; though, of course, no man is infallible. I give this illustration as my view of the faculty.

"All the faculties of the soul are innate, natural, born, not made." Mr. McKellan asks for facts to support my theory; but where are his own? His theory is the negative of mine; and if mine is an absurdity, surely he will not have much difficulty in disproving it.

"Human Nature is the same to-day as ever it was, and it is the same to-day as *ever it will be*." This is as much as to say that Mr. McKellan believes that God at the creation implanted the faculties in the mind as they are at present. It may be so, but where did Mr. McKellan obtain the information with which he astounds us in the second part of the sentence? How does he know what God has in store for man? I doubt his second assertion very much.

"Let Mr. G. explain the laws that govern the process." As Mr. McKellan supposed, I answer that I have twice explained as clearly as I can the way in which I suppose the process may have gone on; and if Mr. McKellan does not understand it, is that my fault? But I now have a right to ask him the law by which faculties are born, not made. He cannot answer this without falling back on supernatural power; and there of course the discussion comes to a sudden standstill.

"If we are deficient in a faculty, we are unable to judge of the natural language of the faculty." By means of Human Nature, we are enabled to recognise the expression of an emotion in which we are deficient, although we do not feel the emotion ourselves; the recognition, at the same time, being rendered more difficult by this very fact, that we do not feel the emotion.

Mr. McKellan, I have no doubt, has studied carefully his side of the question, but has he examined with equal care the opposite view. Everyone ought to do this and then judge impartially between them. I have tried to do so. Mr. Vago's view is, that there is no one organ of Human Nature; and Mr. McKellan says, that when any organ is large, it is easily influenced by, and easily recognises the language of, the organ in another person. From this standpoint it is hard, apparently to account for the *necessity* of any such organ as that of Human Nature. But is it true? Facts do warrant the conclusion to a certain extent, but not, I think, entirely;

as is to be inferred from the preceding paragraph. I am informed by a practical phrenologist that I possess a certain emotional organ which is rather under than over the average size ; and yet I have no difficulty in readily determining the presence of the faculty in others. This, I think, would not be an isolated case if others were to give their experience.

"I think such an article is enough to bring contempt upon the science of phrenology." No, Mr. McKellan ! It is a pet theory of your own which it condemns, if true. Whether the faculties were born or made, is all one to phrenology. This inquiry ought to be classed under the head of "phrenogeny."

To conclude :—"To say that the activity of one or more mental faculties, operating in any form you like, would produce a new mental organ, would be as absurd as for me to assert that the activity of my stomach, in conjunction with my heart and lungs, would produce a new bodily organ, an absurdity too gross to require refutation." Now this monstrous absurdity, I say, is a *fact*, and is recognised by all scientific men who accept the theory of evolution, and those who do not accept it are few in number, gradually becoming less ; and it has taken place numberless times in the life of the organic world. Here is one instance of it—the development of the liver. In some of the lowest animals there is no liver whatever ; the animal being nearly all stomach, as in the common *Hydra*. In animals a little higher, there is a segregation of dark coloured cells near the stomach, which form a rudimentary liver, another illustration of the physiological distribution of labour. And the further we go on in the animal series the more distinct does the liver become ; until we find it so complicated in higher animals. A similar process takes place in the development of man. In the embryo the liver first shows itself as a very small offshoot from the alimentary canal, just below the stomach ; and it grows and increases till it assumes its adult form : the parallel between its embryological development in man and its evolutionary development as shown in the lower animals being complete. If Mr. McKellan wants authority for this, let him turn to Gegenbaur's *Comparative Anatomy*. Here the stomach, in conjunction with lungs and heart and other organs, has produced an organ not originally to be found in animals.

G.

THE passions of mankind are partly protective, partly beneficent, like the chaff and grain of the corn, but none without their use, none without nobleness when seen in balanced unity with the rest of the spirit which they are charged to defend.—*Ruskin*.

EDUCATION BASED ON THE LAWS OF
HEREDITY.

Attention has been recently directed—notably in a little book entitled “Youth; its Care and Culture”—to the wisdom of basing education on the laws of heredity. This is something more than a mere recognition of what are called “physiological principles.” If that term, as commonly used and understood, expressed all it actually implies, there would be no need to amplify its import. Mind is brain-function, just as locomotion is one form of muscle-function. The brain, when it acts, thinks and reasons, and judges and forms purposes. As the size, weight, form, and development of the bony skeleton, with its muscular apparatus, determine the limits and nature of physical power and activity, so do the size, weight, form, and development of the brain, with its apparatus of sense-organs, determine the limits and nature of intellectual power and activity; and as the personal characteristics of the physique are in great part inherited, in like manner the personal characteristics of mind are handed down from parent to child, so that the mental and moral qualities offering themselves for culture by processes which are, in the true sense of the word, *e-ducational* in any individual, are the sum, or the resultant, of the aggregate qualities of the two parents, *plus* the influence of congenital conditions and immediately surrounding circumstances. It is essential to recognise this initial fact, and so to order and apply the processes of education as to develop the good and repress the evil elements in the inherited character. Education ought to be individual and to comprehend a complete system of influences and processes adapted to the cultivation of the physical and mental nature in its concrete form and potentiality. There can be no greater or more ignorant blunder than to regard education as *teaching*. “Training” is a better term to use than teaching, but education in its full and practical sense means much more than both the ideas indicated by these two terms; it implies *improvement*, and “improvement, as applied to the compound organism, the physical and mental nature of man, must include the essential processes of culture, planting or grafting, uprooting or pruning, and growth-stimulating and training. Unless this threefold purpose of education—employing that term in its comprehensive and only true sense—is fulfilled, genuine improvement is impossible, whether consciousness strive to improve self, or others labour to nurture and train it. This is true of both body and mind, subject to the mutual relations

which exist between these two parts of man's nature, if, indeed, they are separate. Every child born into the world is charged with potential energies that need to be stimulated, and with some which, in the interests of individual happiness and social expediency, it is necessary to eliminate, or, at least, repress." This being so, two consequences must be seen to ensue. First, to be really effectual, each child in a school or family should be trained and taught in a manner and upon principles peculiar to himself or herself, and not by a common method or to a common pattern. Second, the surroundings of child-life, the influences brought to bear upon it, the tasks imposed, the exercises body and mind are required to perform, the food with which they are severally fed, and the *régime* to which they are subjected, ought to be carefully selected and graduated to the individual nature and its special needs. If only a tithe of the truth about education were clearly understood, it would be seen that the care of the young is not only a responsible duty, but one which calls for special knowledge, rare sagacity, and exceptional skill.—*Lancet*.

A STRANGE TRAVELLING COMPANION.

In the early part of the year 18—, I was called upon to make a journey from Geneva to Annecy, which, it will be remembered, lies at the northern extremity of the lake of that name in Savoy. The only available mode of transit was by that lumbering, though by no means uncomfortable, vehicle, the Swiss "diligence." Having, therefore, hired my place beforehand for fear of disappointment (a work of supererogation, as it proved, there being only one passenger besides myself), towards nightfall of a bleak, cold, wintry day I took my seat in the *coupé*, and had hardly finished the task of investing myself in my wraps and rugs, when a fellow-traveller—the only one—was shown to the door, and took his seat in front of me.

My travelling companion was a most remarkable looking man; lean and lank, with a face that seemed formed by nature for command; proud, thoughtful, disdainful, almost majestic in its cold grandeur. The eye, however, was *the* feature of the physiognomy, being black, or of so dark a brown as to appear black, brilliant, and piercing, though not large. He had a habit of looking fixedly into space—gazing into infinitude, so to speak; at which times the orb of vision was dreamy and lustreless; but no sooner was he addressed than he turned that organ upon you with nervous rapidity

and gleaming intensity. He was one of the few persons I have met whose eye I could see in the dark.

These observations I was enabled to make as we rolled along over the frozen snow in our creaking and rumbling conveyance ; and I was so impressed with the appearance of my fellow-traveller that I am afraid I manifested too great an anxiety to get into conversation with him, and so find out something about him ; but, in spite of all my efforts to break the ice, he remained taciturn or monosyllabic until we arrived at St. Julien, the first French town after crossing the Swiss frontier. Here we had to descend in order to have our baggage examined, get a relay of horses, &c. ; and it was while impatiently dallying away in a little hostelry the half-hour's delay occasioned by these operations that my companion broke the reserve he had hitherto maintained, and became almost vivacious. I had previously perceived that he was neither a Frenchman nor a Swiss, and he now informed me that he was an Austrian, a native of Vienna ; that he was the junior partner in a large manufacturing house of that city, and that he was travelling on business.

Once more in the diligence, and rumbling through the quaint little town, my fellow-traveller, probably remarking the curiosity with which, in spite of the almost ebon darkness that had descended like a pall upon the earth, I peered out upon the streets through which we were passing, asked if it was the first time I had journeyed that way. I replied in the affirmative ; whereupon he informed me that he had travelled the road once before. As he said this he fell into a deep reverie, which might have lasted several seconds, though it seemed much longer ; then, as if concluding a train of thought, he added, " and under very peculiar circumstances."

" Indeed," I replied.

" Yes, very peculiar," he answered. Then, after a pause, he continued : " If you don't mind, I will relate the circumstance ; it will help to while away the time, and may add a fact to your philosophy."

I signified my assent ; whereupon he related the experiences recounted in the following narrative.

" As I have already told you, I am a native of Vienna, and connected with a business house there. Ten years ago I entered that house as a traveller, having previously spent several years in America. My first journey was to France and Switzerland, when, among other places, I had to visit Annecy. I must first state, however, that my mother died while I was away in the States, leaving me a little property, which was hers in her own right. I had never known my

father, who died when I was quite young; and my only sister, for contracting an alliance with a man whom my mother considered beneath her in station—for our family were very proud, and placed a great deal of importance on caste—was discarded by all our friends and relations. My mother forbade her name to be mentioned, and for several years no one knew what had become of her.

“Such was the state of affairs when I undertook this momentous journey. Starting from Geneva one dark, cold night in December, just such a night as the present, I arrived at St. Julien without having had a single fellow-passenger. It was very dismal—not a soul to speak to, nothing to be seen over the wide landscape but drifting snow, nothing to be heard save the moaning and sighing of the wind, as it came down cold and biting from the snow-clad Salève; and I was only wishing that someone would get in before we left the little town, when, just as the old coachman was cracking his long whip over his leader’s head, the door of the *coupé* was opened, and a lady, dressed and veiled in black, stepped into the diligence, and took her seat opposite to where I sat.

“My first emotion on perceiving that I had got a fellow-traveller was a pleasurable one; for I thought, ‘Now, with a little pleasant conversation, the time will pass swiftly;’ my second, however, was one of deep surprise; for I soon noticed, what I had not at first remarked, that the new comer had no baggage whatever, neither valise, nor bag, nor rug, nor shawl—nothing but the flimsy mourning garments she wore on her person. And on such a night! Nor was I reassured when, in answer to an observation on the inclemency of the weather, I got a simple inclination of the head in reply.

“Several other attempts on my part to break the chilling silence meeting with but the same distant response, I determined to leave the strange lady to her own thoughts and devices, although much against my inclination, for I was desirous, being of a neighbourly disposition, to offer my chance companion some of my superfluous wrappings, not merely for the purpose of increasing her comfort, but for the sake of adding to my own; because, being of a nervous diathesis, it was a torment to me to sit there and see a frail lady in such shivering habiliments. I positively felt the cold that must pinch her. However, her reserve being impenetrable, there was nothing for it but to amuse myself, as best I might, with my own cogitations.

“But I could no more help looking at her than the charmed bird can help regarding the fascinating eye of the serpent. Although her veil was so thick that I could not make out

even the outline of her face, yet I could perceive a pair of dark eyes gleaming through the opaque gauzy material which covered them like a couple of meteor flames (I can liken them to nothing else), and with these orbs the mysterious stranger gazed steadily, fixedly, and undeviatingly—not at me, but into and through me!”

Having got thus far in his story, the narrator became deeply excited and agitated, and was obliged to pause for a few minutes in his recital.

“How the wind wails!” he exclaimed after a pause; and, indeed, the mad lutanist played his wildest and loudest, till it seemed as though every elementary harp-string would snap and break. To me the din of nature’s wild music was enjoyment; to my companion, however, it was too awe-inspiring for anything but a “fearful joy.”

“It ever appears to me on nights like these,” he said, “that the darkness is full of spirits, who—

‘Imprisoned in the viewless winds,
And blown with restless violence round about
This pendant world,’—

atone for evil deeds that they have done on earth. ‘Twas on a night like this, dark, wild, and wrathful, that the mysterious lady journeyed with me in the diligence. I shall never forget it or her. How long I may have remained, riveted, as it were, to my seat, transfixed, held by her ‘glittering eye,’ I do not know; but it seemed an age.

“During all this time I had failed to detect a single movement in the figure before me, except when I had put a question and an inclination of the head was the only reply I got; it was as immobile as the statue of Hermione in the ‘Winter’s Tale.’ At length, however, there was a motion: a white translucent hand appeared from amid the folds of dark drapery, moved slowly upwards, and drew aside the wimple that veiled the head and bust, disclosing a face which, changed as it was, I could not but remember—my mother’s! I recollect starting forward, at the same time uttering some ejaculation, my breast torn with the most conflicting emotions—a mixture of pleasure, wonder, and awe, the latter element, however, greatly predominating. In earth-life my mother was of a beauty extremely rare; now her beauty far transcended anything I had yet beheld. I should have compared her face to that of the immortal Beatrice, had it not been for the unutterable sadness depicted thereon. I gazed on the loved apparition with unutterable amazement; and well do I remember the thought flashing across my mind, that perhaps I was dreaming, or losing my senses; and my

hand involuntarily clutched at my forehead as if to assure myself that I still had reason, which, had I been long held in that suspense, must inevitably have become dethroned. But she spoke.

“‘Jean’ (my name is Jean Becker), she said—and that one syllable seemed to set me free from a world of chains—‘Jean, be not afraid (sei nicht bange); I am thy mother’ (Ich bin deine Mutter).”

“All I could utter in reply was ‘Mother!’”

“‘I have long been trying to speak to thee; I have long been seeking to communicate to thee a burthen which weighs me down. Dost thou know where thy sister—where Lenchén is?’”

“I shook my head in the negative.

“‘I will tell thee. I have been with her, but could not speak with her. She is in Pesth; in misery—from my injustice. Thou wilt find her begging by the theatre. Wilt thou go and see her?’”

“I could not speak; tears choked my utterance; but I gave a sign of assent, and she proceeded:—

“‘Thou art good! Give her my forgiveness, and ask her—beseech her—to give me hers. God bless you! Farewell!’”

“My emotion was so great that I was about to throw myself into my mother’s arms; but before I was aware of it she was gone—vanished, I know not how! I started up with a shudder, struck my forehead with my hand, pulled my hair, examined the *coupé* from corner to corner, peered out into the dark, drear night, but no explanation could I find of the apparition except that it was actually the spirit of my mother that had been with me.

“How I passed the remainder of that dreary journey it is needless to say. When we arrived at Annecy it was the hour ‘of night’s black arch, the keystone,’ and I lost no time in shaking myself free from my wrappings, and making my way into the hotel, which was approached through a low archway. I was just about to enter the door, on the upper step of which stood the *sommellier* with a lantern, which he was holding aloft over his head, when I felt someone touch my arm. Turning quickly round, I again beheld that form of my mother, the light of the lantern falling full upon her sad, snowy, imploring face; it rested but for a moment, and was gone, while a faint, soft voice, distant though clear, distinctly enunciated: ‘Don’t forget! Forgiveness!’”

“And now, perhaps, the strangest part of the story is to come. In the course of a few weeks I returned to Vienna, and of course took the earliest opportunity to proceed to

Pesth. Several months, however, unavoidably elapsed, as I was too sensitive to make known the cause of my journey, and I could not find any other pretext for going thither. It was, I think, towards the end of March when I arrived late one evening in the Hungarian capital. I had scarcely allowed myself time to dine ere I was on my way towards the theatre.

"Well, to cut a painful story short, I there found my sister in rags, begging of every passer-by. She had got a babe in her arms—a babe of a few months old, and a wee toddling thing by her side. I accompanied her home—if a miserable attic, without fire, without furniture, and without light, save from a slender moonbeam—could be called by the name of home. There I found two other children, and on the faces of all were pictured misery, sickness, and want.

"Lenchen soon told me her pitiful tale: she had followed her husband from town to town; they ever seemed to get into worse and worse straits; he never could stick to any steady employment, but gave way to drinking, and grew daily from bad to worse. About three years ago they had come to Pesth, where he at first promised better things; eventually, however, he relapsed into his old ways, got into difficulties, and, to get out of them, fell into worse. About a year previous he had been caught, with several others, in a felonious act, for which he had been committed to prison, where he had died a few months ago, leaving his wife and children beggars.

"I lost no time in getting my sister, together with her family, transported back to Vienna, where she now superintends my household for me, and rejoices every day to see her children growing up all that a mother's heart could wish. Oftentimes my sister had remarked, with tearful eyes, how fortunate it was that Providence had guided my footsteps to where I should find her, ere I related to her the mysterious incident which led to my making a journey to Pesth. I need scarcely add that the recital moved her deeply, and that the forgiveness the spirit of our mother asked was quickly and generously given."

I asked my companion, "Did you ever see anything more of the apparition?"

"I don't know," he replied. "Once in the summer-time, when I was sitting in my room overlooking the garden, I thought I saw coming towards me in the grey twilight the form of my sister, who strangely resembled my mother; I stepped out of the window, and went towards her, knowing that she had been paying a visit to a near neighbour who was

ill, and was about to ask her how our friend did ; but before I could get the words out of my mouth she said, 'It is well, dear Jean ; I thank you—farewell !' and disappeared. When I went into the house, I found Lenchen had not yet returned."

When my travelling companion had finished his narrative we had reached our journey's end. C. N.

IS MAN THE HIGHEST ANIMAL?—The measure of zoological rank is the specialization exhibited by all the organs, taken collectively. Specialization may be exaggerated in one or several organs, without the animal therefore attaining as a whole a high rank. This is the case in man. The measure of specialization is afforded by embryology, which shows in earlier stages the simplicity and uniformity of structure, which in later stages is replaced by complexity. The human body preserves several important embryonic features. In man we find three series of high differentiations—namely, in the brain ; in the changes induced by or accompanying the upright position ; and third, in the apposibility of the thumbs to the other digits. These are the principal, though of course not strictly the only, characteristics of man, which show that he is more specialized than any other animal. In other respects he shows a still more striking inferiority. It is of course a familiar observation that his senses are less acute than those of many animals : he has neither the keen vision of the falcon nor the delicate scent of the dog. He is equally inferior in many structural features. His teeth are of a low mammalian type, as is shown both by his dental formula and by the presence of cusps upon the crowns of the teeth, a peculiarity of the lower mammalia, entirely lost in the horse, the elephant, and many other "brutes." His limbs show a similar inferiority, since they are little modified, preserving even the full number of five digits ; and in respect of these members man stands therefore very low—lower than the cow and the pig. He plants the whole sole of his foot upon the ground ; yet none, except the lower mammalia, together with man and his immediate congeners, are plantigrade. So, too, with his stomach, which is so simple as compared with that of a ruminant, and indeed is of about the same grade as that of the carnivora. It makes, however, a still more forcible impression to learn that the human face (which we admire when withdrawn under a high intellectual forehead) is perhaps the most remarkable of all the indices that point out man's inferiority. In the mammalian embryo the face is formed under the fore brain or cerebral hemispheres. In our faces the foetal disposition is permanently retained, with changes, which when greatest are still inconsiderable. In quadrupeds the facial region acquires a prominent development leading to the specialization of the jaws and surrounding parts, which brings the face to a condition much higher than that of the foetus. Hence the projecting snout is a higher structure than the retreating human face.—C. S. Minot.

Poetry.

THE ROBIN.

ALL summer long, in some fair shaw or dell,
 Thou, bonny bird, hast hid thyself away
 Amid the bushes green and snowy spray
 Of sweet hawthorn, or where the purple bell
 Of heather blows upon the spreading moor,
 Companion to the martin, lark, and thrush ;
 But now when bare is every tree and bush,
 And dead leaves lie upon the sodden floor,
 And sad winds howl, and branches creak and whine,
 As though the haniadryads were in pain ;—
 Now thou hast left the coppice and the plain,
 Thy wee snug nest, round which sweet eglantine,
 Clematis wild, that flower of lowly worth,
 Or jasmin fair, perchance in beauty clomb,
 And all the joys of that free gladsome home,
 Whilome so full of honest-hearted mirth,
 To tarry here awhile in our dull town—
 To teach us with thy simple fervent lay,
 How we should bear ourselves when o'er the way
 Dark low'ring clouds for ever threat and frown. A.

THE WIND.

I heard the spirit of the wind
 Sing in the darkness of the night ;
 And well I knew he could not find
 Rest from his weary flight.

He sang so sadly of despair,
 I could not choose but weep to hear ;
 Anon his voice rang thro' the air
 In agony of fear.

'Then anger wildly wailed and mourned,
 And died in fitful sobs away,
 But next his voice was softly toned,
 Singing a low love lay.

I fell asleep and dreamed of thee,
 Sweet spirit, shrined within my breast !
 Sing in my waking dreams to me,
 As in my nightly rest !

F. A. TOLE

Facts and Gossip.

A BLIND MAN'S VISION.—One of the most eminent of living investigators into the phenomena of optics is M. J. Plateau, of the Royal Academy of Belgium, who for the last 40 years has been so totally blind that he may direct his face to the sun without being sensible of the least objective clearness. His researches into the phenomena of light have excited the admiration of his fellow-scientists; his experiments, for example, on the wonderful colours of soap-bubbles are exquisitely beautiful. M. Plateau has just published a little paper on the sensations which he experiences in his eyes, which is not only interesting but calculated to be of practical value. He states that he has constantly in his eyes the sensations of light; his field of vision is divided into spaces, of which some are very clear, and others sombre or almost black. These spaces are not precisely limited, but run into each other at their borders; but what is remarkable is that their general tint alternates between grey and reddish. For example, if it be the grey M. Plateau perceives now, in a few hours it will be the red; then a few hours later, the grey again, and so on. The reddish tint is that obtained by mixing pale rose-colour, or rather flesh-colour, with a certain quantity of black. The relative arrangement of these different spaces is always the same, but the intensity of their tints varies. The central space shows itself sometimes very clear, sometimes very sombre; above and below, as far as the limits of the visual field, there is sometimes clearness, sometimes obscurity. It is the same with the space to the left, there is generally a vertical, almost black band, and the space to the right of that, as far as its limit, is almost always clear and ruddy. These appearances seem to M. Plateau to fill the whole extent of his ordinary visual field. He believes the distance at which they are is small. These same appearances follow all the movements of the eyes, as if they resulted from a modification of the retinas. It appears to M. Plateau that the two eyes do not participate in the same manner in the tints in question; but he is absolutely incapable of distinguishing what belongs to the one from what belongs to the other. He has not been able to establish any coincidence between the changes of the general tint and the work of digestion. These observations have perhaps some interest from the physiological and medical point of view, and this is why M. Plateau has ventured to make them known. He attributes his blindness to the fact that, impelled by a senseless curiosity, he looked fixedly for a very long period at the sun in all its brightness, in order to observe the subsequent appearances in his eyes. It was only about 14 years later that the choroid was irrupted; but in that interval he often saw around lights, gas-flames, candles, &c., halos vividly coloured and persistent. If M. Plateau is not mistaken, Galileo, before his blindness, established the existence of similar halos; persons, then, M. Plateau argues, to whom such halos show themselves, would do well, if the phenomenon is repeated and becomes frequent, to consult an experienced oculist.

"A CURIOUS FACT IN EVOLUTION."—A correspondent writes to the *Times*:—"A certain spot in the grounds of the Rev. Lord Sidney, Godolphin, Osborne, Durweston, has, for I know not how many years, by the reverend gentleman's kindness, furnished microscopists with a peculiar kind of earth. On taking a very minute portion of this earth and immersing it in a drop or two of pure water, two species of a most lovely animal, *Rotifer vulgaris*, will be developed in about ten minutes. No matter how often you repeat the experiment, the same two forms invariably appear. The process of development can be watched under the microscope with a quarter-inch power; for in this short space of time named, the complex organisms will be seen to swim about and exercise, in a perfect manner, all the functions of their existence. A curious fact in connection with the subject is that if the earth is carefully kept, the same process may be repeated, with like results, for twelve months at least, after which these animals seem to be unable to resist further desiccation. But not so a more lowly organised form which also makes its appearance in the solution, for at the end of ten or twelve years I have obtained a good crop of minute protoplasmic creatures, amœba, belonging to the lowest class of animal life, such as those mentioned in the paragraph from the *American Journal of Science*, and whose reproduction is carried on as there described, by segmentation, separation, or self-division; a process which has probably been going on throughout all time, and will, I venture to think, go on *ad infinitum*. Only last week, on taking a packet of earth from a drawer, dated Durweston, July 13, 1869, and placing a very small quantity in a drop of water on a microscopic slide, in a short time I had an interesting display of these curious protean bodies, amœba, moving about over the field of the microscope."

PROFESSOR PETTIGREW, F.R.S., in an introductory lecture on physiology, at the University of St. Andrews, is reported to have said:—"The ancients believed, and he thought rightly, that men varied as to intellectual capacity and endowment, and that it was the province of education to draw out of the man that which naturally inhered in him. The more modern—and he believed the less philosophic—view takes for granted that men vary little to begin with, and that everything might be put into them by a process of cramming. The ancients aimed at teaching men to think and judge; the moderns had no soul above passing examinations and getting on in the world. As a physiologist, his sympathies were wholly with the ancients. The great problem of the day was how to develop and cultivate the human intellect. The two great modern schools of education were, he said, widely divergent. The one sought, by symbol and cipher, to impart to the young and inexperienced head abstract ideas and truths about men and things; the other aimed at instructing youth not by symbols and the mere names of things, but by the things themselves—these, fortunately for science, being strewn around in prodigal profusion.

The former method—the symbol teaching—leans principally upon memory, and is eminently unattractive to the young mind. It has, as a consequence, proved a comparative failure. The latter method—the object lesson method—is quite a seduction for children; it leans less, indeed comparatively little, on memory, and provokes thought and reflection. The object lesson method expands the reason, and develops and corrects the judgment.”

M. PAUL BERT has lately sent the editor of *La Nature*, from Geneva, two photographs of a human monster exhibited there, living and aged five years, having been born at Turin in 1877. It has two heads, four arms, and two chests, but one abdomen and pelvis, and two legs. the fusion of the two bodies begins at the sixth rib. From due examination and from what has been observed in previous monsters of the kind (they were named Xiphodyme by Isidore-Geoffroy St. Hilaire), it may be affirmed that there are four lungs, two hearts, and two stomachs. There are really two individuals. The right leg obeys only the right individual, who alone feels pinching of it; and similarly with the left. The sensibility of each half of the body is in exclusive *rappor*t with the head of the same side. The two individuals were baptized doubly under the names of Jean and Jacques. They are equally developed from physical points of view (except a slight club foot on Jacques's leg), and intellectually they are much alike. Their intelligence is normal; they reply to questions of visitors in French, Italian, and German. They seem gentle and amiable, also lively, often playing together while lying on cushions, or on the knees of their reputed father. It is said they have never been ill. It has been shown, in the case of other double monsters that one may have an inflammatory fever, while the other continued well; but the like would not occur with infectious disease or poisoning. Several cases of these Xiphodyme monsters have been recorded in history, but very few have lived.

A FRENCHMAN has recently made some curious experiments upon himself, and as a result has announced to the world that it is possible to control dreams and make them either pleasant or otherwise. His method is to stimulate the brain through the agency of heat, and to place the body in certain positions. He finds that by bandaging the head with a layer of wadding his dreams always become sane and intelligent. As regards the position of the body, the results, so far as the nature of the dreams are concerned, are varied. For example, when he lay upon his back he experienced luxurious and sensuous dreams. To sleep on the right side brought him dreams which were absurd and full of exaggeration, and which brought old matters vividly back to his mind. While lying on his left side the exaggerated character of the visions disappeared. They became sensible and intelligent, and recalled more recent experiences. The phenomenon of speech in slumber was also more apt to be noted while the body lay in this posture.

THE death of M. Louis Blanc, the well-known Republican leader, at the age of seventy-one, recalls to mind a memorable circumstance which happened to him in 1839. He was returning home to the street Louis-le-Grand one evening in October, a few days after he had published a review of "*Les Idées Napoléoniennes*," when he was suddenly assailed by some unknown dastard, who stabbed him repeatedly, and left him for dead upon the pavement. This incident was the origin of M. Dumas's celebrated "*Corsican Brothers*," the main subject of which is the preternatural sympathy of two brothers. M. Louis Blanc had a twin brother, who was at that time in Spain, and who felt strange pains, as if from blows in the same part of his body and at the same moment as his brother in Paris, and before information reached him he had already written to know if any misfortune had occurred.

JEAN CONDOISE has been brought to Paris as a medical curiosity from the Haute Caone. According to a medical contributor to a Parisian contemporary, this youth, aged 19, took a start on the 17th of May, 1881, being then six feet three inches high, and found one morning that he had grown an inch. Every week since then he has registered himself, and on the 14th of September this human beanstalk had gained nearly five inches; he grew five inches more before the 20th of January, 1882, and seven more before March 15th, and he now stands seven feet ten inches. All this has been accompanied by great pains in the back, and he stoops considerably; but since last June it is his legs only that have grown, and his feet are already twenty-four inches long.

LANGUAGE OF THE HAND.—With the hand we demand, we promise, we call, dismiss, threaten, entreat, supplicate, deny, refuse, interrogate, admire, reckon, confess, repent; express fear, express shame, express doubt; we instruct, command, unite, encourage, swear, testify, accuse, condemn, acquit, insult, despise, defy, disdain, flatter, applaud, bless, abuse, ridicule, reconcile, recommend, exalt, regale, gladden, complain, afflict, discomfort, discourage, astonish; exclaim, indicate silence, and what not; with a variety and multiplication that keep pace with the tongue.—*Montaigne*.

WE are pleased to learn that there is some probability of a phrenological society being formed in Greenock. One of the local papers has been discussing the subject.

ACCORDING to the *Scotsman* an electric boy is being exhibited in the Waverley Market, Edinburgh. The touch of his hand produces a sensation like that produced by an electric current, and with the tip of his tongue he can give a smart shock.

IT many times falls out that we deem ourselves much deceived in others because we first deceived ourselves.—*Sir P. Sidney*.

IN response to repeated solicitation, we have decided to continue to give every month during the present year a few brief delineations of character from photographs. The chief reason for determining to do so has been this. It has been a frequent criticism on our monthly delineations of celebrated persons, that almost anybody could write the characters of such men from their known characteristics, and that what was wanted was the delineation of persons unknown or who had yet to make their mark. Of course, if we gave every month a delineation of some obscure individual, the criticism would at once be made: why don't you tell us something about some one we know, instead of about these nonentities? We shall, therefore, try to meet both objections; and if our forecasts of active character prove correct, phrenology will be justified in the eyes of those who require such proofs.

IN the Paris Academy of Medicine M. Parrot has recently called attention to some remarkable results obtained in the Hôpital des Enfants-Assistés, of Paris, in feeding delicate infants with asses' milk. The feeding-bottle was formerly used for them; but afterwards direct application to the udder of an animal was tried. At first the infants were thus fed with goats' milk, but it was soon found that asses' milk was greatly preferable, and all are now fed with that, one, two, sometimes even three infants being held to the animal's udders at once. The nurses do this with great ease. The results of the treatment appear well from the figures cited. During six months eighty-six infants having congenital and contagious diseases have been treated in the hospital nursery. Of the first six, fed with cows' milk in feeding-bottles, one only was cured. Of forty-two fed at the goat's udder eight were cured, while thirty-four died. Of thirty-eight fed at the ass's udder twenty-eight have been cured, while six have died.

M. ALEXANDRE DUMAS is preparing an important work treating of the science of chiromancy, in which he is an ardent believer. His master in the art has been M. Desbarrolles, a man of science and art, who has read truly many a character, and astonished some by the revelations he has made in their private ear. According to him the hand is the indication of the character; past, present, and future are written in the lines of the palm.

ACCORDING to a *Psychological Journal* Mr. E. Gallagher, of Heaton Chapel, Stockport, "has given abundant proof of his seeing persons, places, and events thousands of miles away, and of ability to foresee events with great accuracy long before their literal fulfilment."

THE question has been asked whether the phenomena known as "thought-reading" may not indicate the dawning of a novel faculty which, in the course of perhaps a hundred generations, will become too plain to be questioned?

Correspondence.

A TESTIMONY TO AND PROOF OF PHRENOLOGY.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

Sir,—About twenty-two years ago, during one of Mr. L. N. Fowler's visits to my native town, Oldham, Lancashire, I sat with him for a private delineation of my character; and of the various things that he then told me, those relating to the defects in my organization made the deepest impression upon my mind, and I determined from that day to remedy those defects.

I can well remember Mr. Fowler laying his hand upon my shoulder in a very fatherly way and saying—"Young man, you are defective in Hope and Self-Esteem; if you will but cultivate these two organs you will never need to take your coat off your back to earn a living." At the time that Mr. Fowler examined me I was dressed as a cotton operative, having gone to him during the dinner hour. The above advice, however, has been my Pole Star in life, leading me onward and forward. At the time of my visit I had little self-confidence and my hope was anything but buoyant. But now these organs have increased by the constant exercise to which they have been subjected. During the present year (1882) Mr. Fowler has re-examined my head, and he pronounced these two organs (Hope and Self-Esteem) to be at least *a degree and a half larger* than when he examined me before; thus proving that the phrenological organs can be increased by activity as well as the muscles, veins, arteries, &c. The brain and the skull being parts of the same body as the muscles, &c., and subject to the same physiological changes, they can be, and often are, increased by activity. It is a well established physiological law, that the repeated action of any particular organ allures to its centre new deposits of brain matter, and by the natural process of growth and formation the skull is shaped to indicate the growth of that particular organ; as in my own case as stated above.

This conclusion is confirmed by the change in my character in relation to the organs in question. My friends now speak of me as being very sanguine and hopeful. But, to secure this result, I have had to bend all my energies with a view to making my way in the world. In the early part of my public life I had frequently to use the spur in order to retain my balance when standing before public audiences. A desperate weakness required a desperate remedy; and knowing it, I determined to apply it. The result is as Mr. Fowler predicated it would be.

From the impetus given to me in early life, by attending the lectures of Mr. Fowler and others, I have been a close student of phrenology and physiology, and have lectured on these subjects in many of the large towns of Lancashire and Staffordshire, and am still doing my utmost (in harmony with my ministerial duties) to make phrenology popular.

During the present year (1882) our church committee have had two courses of lectures on mental science, by Mr. Fowler, four being given in May, in the Longton Town Hall, and four more in November, in our church at Dresden, Stafford (on behalf of our new schools), which have done much in the furtherance of phrenological knowledge, and in creating a healthy public opinion on the subject.

As a minister of the Gospel, I believe phrenology to be very helpful to me in enabling me to understand the dispositions, the mental characteristics, the likes and dislikes of the men I have to deal with, and of adapting my teaching to their varied peculiarities. I believe that phrenology is in perfect harmony with the teachings of Christ; that the book of nature, as written on the cranium, is in perfect harmony with the Book of Revelation; and that the two must stand or fall together.

JOHN H. HOWSHALL.

WHISTLING.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

Sir,—A few years ago I had the pleasure of being acquainted with a very lively young fellow, who had a great habit of whistling, so much so, that he rejoiced in the very significant and applicable title of "Whistler."

I, having only a year previously commenced the study of phrenology, the enthusiasm, which had sent me here and there inspecting the head of anyone who had the least fame or notoriety, though getting cooled down, my fire had not gone out. So my whistling friend became known to me, just in time to get his share of as thorough an overhauling of his cranium as I was able to give him. When he has been sitting down with a few friends, entertaining them, I would select a seat in the most unnoticeable quarter, and sit and stare at him for so long a time that an onlooker might think I had some intention of mesmerizing him. When I had, in this way, examined the proud, the quarrelsome, or the very musical man, I had not stared long before I became satisfied. But with this young man I never could observe any known faculty which would satisfy me as the foundation of his peculiarity. His Time and Tune were large; but if Time and Tune give the talent for whistling, why not all the others which I had examined be whistlers? Though they could all more or less whistle, they took little or no delight in it, while to this young man it was a pleasure. I had for a long time observed that he had a prominence outside the organ of Tune, and above the faculty of Calculation. When I first conceived the idea that it was no doubt the organ which gave him the power and pleasure which he enjoyed, I laughed so much at myself that I determined to give up all ideas of an organ of whistling. But the thought came back to me: Why not either an organ or a combination of organs, or both? There was another man, whom I had known for three years, and I never heard him whistle. His Tune was small, and where I had noticed the prominence in the young man's head, was quite flat in his. This made me determined to go

on observing, and I have invariably found that persons full where I have mentioned, are fond of whistling and shrill musical sounds. Nor does it seem to be confined to whistling alone,—though I have not been able to observe as much as I would have liked,—yet, I have never found a person who was fond of bell-ringing flat where I have mentioned. If I say there is such an organ in man, I must say there is a corresponding one in woman. And how many women, and especially girls, who are fond of whistling? DANIEL HARRIS.

Rhosddu, Wrexham.

[The writer refers to the part marked in some busts and charts with a star, in others by a blank space. A fulness there has been taken to indicate good lung-power. We shall have something to say on the subject in our next number.—ED. P. M.]

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

L. B. W.—Your organization is somewhat peculiar, and you will not show out your full powers until about middle age. You are not quick, spontaneous, or precautions in development; but rather slow in maturing, and your best ideas come as second rather than as first thoughts; still, decidedly original and of good understanding. Some things you learn very quickly; other things come more slowly. Your memory of thoughts, ideas, and principles is good; that of details, &c., less perfect. You are anxious to learn and very inquisitive for knowledge and experience; are generally neat and orderly; fond of beauty and style; rather ingenious and skilful in contrivance; rather economical, and capable of making a good manager; none too cautious, and sometimes, perhaps, not quite discreet enough, especially in what you say, for you are a great talker, and sometimes let out things in conversation that it might be wise to keep back; quite ambitious and desirous to excel; indeed, you are of a family noted for its public spirit and desire for public work. You are very sympathetic, and not disinclined to missionary labours; devoted in your affections and friendships, although probably particular in making fresh acquaintances. Your will does not show itself so much in quick decision and determination as in perseverance. You are also patient and inclined to finish what you begin; generally good tempered, but somewhat "snappy"; very imitative, and capable of copying and designing. You would like to be in a public sphere and are adapted thereto.

R. H. (Greenock).—Your photograph indicates considerable variety of character. You are clear-minded, quick to take an idea, and almost as quick to apply it; keen of observation and possessed of a good memory of what you have seen, examined, or thoroughly understood; systematic, as a rule, and disposed to arrange your facts and business in a methodical manner, but versatile and disposed to have many irons in the fire at once; decidedly ingenious, full of contrivances, and with not a little of the inventive capacity; fond of beauty and style, with a keen eye for nature, and quite poetical in temperament if not in genius; witty, fond of fun, and rather humorous; a good talker, and might have made your mark as a lecturer and entertainer. You are very sympathetic, but rather odd; firm and persevering, though somewhat impatient; not always as cautious and circumspect as you might be; fond of company when you can get it of the right kind—that is, intellectual; not very selfish in money matters, but inclined to be liberal; not credulous, and especially inclined to try old institutions with the touchstone of common sense; lastly, somewhat democratic. It would have been well if you had had a little more memory of details and events, more circumspection and general prudence, more consecutiveness of mental action, and a bit more physical energy to counterbalance your great mental activity and sprightliness. Your tone of mind is high, your tastes intellectual and moral; and your best capacities in the direction of science, philosophy, and literature.

A. C. (Vauxhall).—The photograph indicates a lady of rather a high type, one who should be characterized for several strong traits. She takes after the father's side of the family, and resembles him in many points of character. She has a will of her own and cannot easily be influenced against an impression that has been deliberately formed; but is generally cautious in coming to a decision, except perhaps where her feelings are concerned. The social feelings are very strongly developed, and must have an almost paramount influence in her character. Where her love goes, there her life will go. She is ambitious, fond of distinction, anxious to excel, and rather jealous of any rivalry. The intellectual powers are fairly though not uniformly developed; she is quick to see what is going on about her and a keen critic, but does not always take principles sufficiently into account; her memory of things she has done and experience generally is good, but of events and details not so good; is orderly and neat, a good talker, fond of travel, and capable of putting down her ideas with care. Is decidedly moral and inclined to a religious life, although she may not always be as circumspect as might be desired.

W. S. (aged 2 years 3 months) has a well-developed and rather large head. None of the organs appear to be specially small, and with proper training he should grow into a fairly-balanced and capable man. The intellect and imagination are well represented; also the constructive powers, Memory and Language. He should make a

good scholar, and ought in due course, to show talents either for business or a profession. He will develop some of the powers necessary in the orator and in the actor. He has plenty of energy and some temper.

J. N. (Newark).—We should not advise you to study for the Church: you can do better. You are better fitted for an engineer, contractor, architect, farmer (on a large scale), or explorer. Don't be afraid of what some rather effeminate young men describe as rough work. Rough out-door work is what you want; and in time you will like it.

M. W.—Surgical operations have been performed upon persons while in a magnetized or hypnotic condition. Dr. James Esdaile, in his work entitled "Natural and Mesmeric Clairvoyance," describes a number of such cases performed by himself and others. We have no knowledge, however, of any institution where such operations are performed. Perhaps some of our readers may know of such institution and will kindly inform us.

W. P. M.—Yes; so far as we can judge, if you can get the necessary study and polish. But do not be satisfied to be a two-penny-half-penny phrenologist; better be a plain, honest farmer than that. Do not read too narrow a meaning into the word "punctuality."

D. A. (Crosshill).—Thanks for your suggestion.

A. M. (Camberwell).—You are not lacking in strong points, and of course you have your weak ones. The former are will, perseverance, patience, energy, prudence, circumspection, conscientiousness, respect, affection; the latter shyness, temper, over-caution, dilatoriness, and shortness of memory (for details, dates, figures, &c.). You have good understanding, fair powers of criticism, ingenuity, some musical gifts, and fair powers for both speaking and writing. You can make a scholar; but you would do well not to get into a too sedentary occupation. You might make a writer, an artist, or a musician. What you need first to overcome is your tendency to keep in the background, next your dilatoriness.

J. D. (Newcastle).—No; if we did that it would take up too much space, and would be of no interest to any but the person himself or herself. You could of course have any additional particulars you desire written down by paying a small fee. Surely that is no hardship.

PEOPLE seldom improve when they have no other model but themselves to copy after.—*Goldsmith.*

THE
Phrenological Magazine.

FEBRUARY, 1883.

REV. JOSEPH PARKER, D.D.



THE mind of every individual has some characteristic feature that gives him his identity. This may be breadth or narrowness, largeness or contractedness, brilliancy or dulness, refinement or coarseness. There are as many kinds of brains as there are of minds. Every individual has a brain peculiar to himself, and the tone of his mind corresponds with the development of his brain. The body is constantly taking on new matter and throwing off old, useless particles; yet it retains the same general identity: so the brain and mind may undergo changes and modifications in tone and quality, while its general characteristics remain the same, unless the brain becomes diseased and the mind thereby enfeebled. In proportion as the body is in a healthy condition, so is that of the brain, and when the brain is healthy the mind has fewer impediments in its outward manifestations. The circumstances that surround an individual have much influence over his brain, mind, and character.

Dr. Parker is less dependent on external circumstances than many, because his body is so strong, and his brain so vigorous, that his mind is unique, positive, and individual. He has such a combination of physical and mental powers that it would have been easy for him to gain honour, distinction, and notoriety under almost any circumstances in which he might have been placed, even with but limited opportunities. It is not surprising, then, that having been tolerably well cultured, he should be one of the most influential preachers in London. He has a strong, vigorous organization, ample development of bone and muscle-power, with a forty-one inch chest measurement; he has, consequently, great vital stamina, and a strong hold on life, powerful lungs, and a lion-like voice.

A man with such a powerful, physical structure, with good digestive ability, and an ample amount of arterial blood, must work executively and carry all before him. He cannot do

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child's play, but throws great force and strength into all his efforts, and clears all impediments from his track. He is fond of general, manly exercise, athletic sports, and of roughing it occasionally, by way of gratifying his executive nature and restless spirit. He is a thoroughly masculine man—feels strong within himself, and wants to do everything in a whole-sale way, with as little assistance from others as possible. When once in the battle, he is bound to fight it through, or die in the attempt. All his sympathies are with bold, strong measures. He would make for the gates of the city, strike the first blow, and take the city by storm rather than by stratagem; yet if stratagem were necessary, he would know how to resort to it effectually. He appreciates such men as Moses, Daniel, David, and Luther, who accomplish what they undertake and achieve mighty deeds.

His nervous system is distinctly developed. It renders him very susceptible to external influences, to enjoyment, and suffering. He desires to have everything adapted to and in harmony with the occasion; hence he often finds it necessary to arrange his own matters for himself, as he can work after his own plans much more advantageously than after those of other men. His sources of enjoyment are also peculiar to himself. He wants the essence of everything without a long introduction or many conclusions and inferences. His brain-power is very great; his head measures twenty-four inches in circumference, while twenty-two is the average measurement of a medium-sized man.

The head is fully developed in every part; all the faculties have more or less power, while some have amazing influence. His strong points are so strong, and he manifests them so plainly, that his special characteristics stand out boldly. He is a fine example of the phrenological doctrine, that size, all other things being equal, gives power. His mind, compared to that of an ordinary man, is like a cannon compared to a pocket-pistol, or like a man-of-war compared to a pilot-boat. Some of his leading qualities and attributes are comprehensiveness of mind; great depth and breadth of mental conception, amounting almost at times to mental extravagance; extended mental vision, and ability to take into account the whole of a subject, to see all its bearings, and to harmonize the greatest extremes, so as to produce a complete mental picture; power to use language which embodies abstruse thoughts and general ideas, and to make vivid and life-like comparisons. He has a wonderful command of a great mind, and of uncommon sense. He deals in magnificent ideas, and must work on a large scale if at all. He has a great rever-

ence for Divine power, eternal things, and momentous consequences. All subjects that absorb his attention are handled in a comprehensive manner, for his mind is not adapted to the details of science, or the application of principles in the minutiae ; but he grasps new ideas and fundamental principles almost at a glance, and is able to enlarge upon, to simplify and embellish his own ideas with the greatest care.

His observations are directed to particular objects for special purposes, but he is not a business-observer, nor a



scientific experimenter. His memory of mere objects of sight or action, or of the common occurrences of the day, or of conversation, dates, or events, is not good ; but if he is interested in a subject, he can commit to memory and remember retentively what he reads and understands. His reasoning faculties are larger than his perceptive powers, hence his judgment of principles is better than his memory of facts, and he is more philosophical than scientific, and deals in thoughts more than in facts and details. His language in common social conversation is not great ; at such

times, his ideas are condensed into as few words as possible. It would be a difficult task for him to keep up a continuous conversation on the common social topics of the day ; most of his sentences in conversation are short, and as much to the point as possible. In the pulpit he is much more at home than in the social circle, and is much more copious in the expression of his thoughts before an audience than in private life. In proportion as his subject will allow him to give vent to his imagination, is he copious in the use of words ; but even then he is neither prolix nor verbose, for every sentence contains a condensed idea, and is not a string of meaningless, useless words. At times he has, to a casual listener, an appearance of being a verbose speaker ; but it is because his mind is crowded with thoughts that are manufactured faster than he can find language to clothe them, so that he speaks from the abundance of his thoughts ; hence he never lacks for themes, or illustrations of his subjects. If he is ever minute or detailed in the use of language there is a cause for it in the occasion.

Constructiveness is large, which gives him great ingenuity in the construction of a sentence or an argument ; Ideality and Sublimity are large ; he is a great lover of general literature, is extravagantly fond of colours in flowers and foliage, of scenery, land and water, hill and dale, and of nature in every aspect. His Imagination with his Constructiveness enables him to create imagery and embellish his subjects with vivid descriptions. Mirthfulness is very large and active. He has a keen and lively sense of wit and of the ludicrous.

He is affectionate in his feelings, domestic in his disposition, and fond of the quiet of home and all its associations. He does not care to go into general society unless there is ample entertainment, or a manifestation of skill and talent in which all can participate ; otherwise he prefers to spend his time in his study. He enjoys excitement and enthusiastic demonstrations on important occasions. The hardest work he has to do at such times is to keep himself in proper check. He is more like a rampant lion than a sleeping lamb ; a roaring cataract than a bubbling spring. He values money highly, and wants much, because he has large desires and extended plans, and he could make excellent use of it ; but whether he has much or little, it will all be used, for he has not the hoarding spirit. Were he wealthy, he would not give to beggars, but would establish institutions for the honest poor and dependent. He would multiply libraries, and have a first-class one of his own.

He is high in the crown of the head. Approbateness is large. He desires the approval of friends, is ambitious to excel, would like to immortalize himself, and is willing to make the exertion necessary to earn the fame he desires, yet he would labour as a student for the love of study without reference to the public result. He is not, naturally, so proud and dignified as he is ambitious and sensitive, yet he has great love of freedom and liberty, cannot bear to be under obligations to others, and has so much independence of character that he will acknowledge no man master. He feels that his place is at the head, where he can take the responsibility, and give directions to others, who must attend to the details and carry his plans into execution. He has really so much innate power, that he cannot work after the plans of anyone else, nor will he allow others to do his thinking for him, for he is conscious that he is capable of doing it for himself. He is positive in his opinions, in his likes and dislikes, and is very emphatic in the expression of his ideas; in fact, he is not a half-way man in anything—is for or against, cold or hot; he can be led but cannot be driven; gentle measures will influence him much more than force and compulsion.

He can preach an exhaustive sermon on a small text, or he can take the whole Bible for a text, and present the great ideas of it in a nutshell, more easily than most men, and apparently without extra labour. He has a wonderful faculty to condense thoughts and ideas, and to say much in a little. Had he language equal to his ideas and imagination, he would become one of the most copious speakers of the age. Ordinary people may think that his ideas are too comprehensive, that his plans are too large, and that his doctrines are too liberal; but one with such a whole-souled organization is like an avalanche which moves with overwhelming force. Veneration was not so large naturally as some of the other moral and religious faculties of the brain, but it is now more developed than it was several years ago. Benevolence, being his largest moral faculty, exerts a modifying influence on his theological opinions, and prompts him to adopt liberal views of theological subjects, and, of the two, he gives pre-eminence to the attributes of mercy rather than of justice.

His reasoning faculties being large, he prefers to have a good philosophical foundation or basis for his belief. He could not confine himself to a narrow, sectarian creed, but has one which embraces broad and liberal ideas of God's government and man's relations to his Maker; as his faith is subject

to his reason, so his hope is regulated by his experience. It would be almost impossible for him to take any other man as his guide in matters of theology. His mind cannot move in the ordinary groove; the gauge others travel on is too narrow for him. If there is work to be done, he not only can work himself, but also knows how to set others to work; yet they generally conform to him rather than he to them. He may not be ingenious in the use of tools for the want of practice, but he is most ingenious in constructing sentences—in so using language as to convince others, and in making a very unpopular theme acceptable. He has also the power to be very sarcastic if in the mood for it. In his general character he is unique, delights to get away by himself, and commune with nature and nature's God. He is in his element when at the head, taking the lead, giving suggestions, generating plans, while others carry out his suggestions. When he fails, it is for the want of the business-talent to attend to details.

Had he more of the perceptive intellect, he would be more perfect in his arrangements, successful in his efforts, exert a wider influence among all classes of men, and his genius would be more available in a greater variety of ways; now, he is often liable to be misunderstood, and wrong motives are often attributed to him, because he is so direct and positive in his style. He differs from all other men I have seen, who had so large a head, in that he is so quick, spontaneous, prompt, off-hand, and has not a slow, dull, sluggish temperament. He has the talents to succeed as a clear, sound, concise and comprehensive author and reasoner; also as an emotional, enthusiastic, forcible speaker and preacher. Had he chosen the stage as a profession, he would have excelled as a tragedian. Had he made the law his profession, he would have excelled as a pleader; he would have been ingenious in his reasoning, and plausible and forcible in his summing-up of a case.

The following are a few biographical particulars of the reverend doctor. He was born in 1830, and is consequently yet in the prime of life. Although originally of an humble station in life, he early conceived such a miscontent of his position as proved a powerful stimulus to exertion. He studied hard, and fixing his mind upon the ministry, finally succeeded in attaining the object of his ambition, being appointed to the pastorate of the old Congregational Chapel at Banbury, where his preaching was so successful that a larger building had to be erected for his growing congregation. From Banbury he went to Manchester, where for ten years he held the pastorate of Cavendish Street Chapel.

There his power became still more marked, and he soon became an influence for moral and religious good throughout the North of England. In 1867 he was invited to become minister of the Old Poultry Chapel, London, which was "vacant" in more senses than one, a division having occurred among its supporters, and the majority having left with the old minister to organize a new church. He accepted the call, and the result was an immediate revival of strength and numbers, and in a short time the old walls were too small for the audiences that crowded to hear the new man. The building was sold, and the stately edifice known as the City Temple erected on the Holborn Viaduct. The building accommodates three thousand persons, and it is usually filled to its utmost extent, not only on Sundays, but on Thursday mornings, when he regularly conducts a service.

Dr. Parker is the author of several works, among the best known being his "Ecce Deus," written as an answer to the famous "Ecce Homo;" "The Priesthood of Christ," "Ad Clerum," and others.

L. N. F.

THE STUDY OF PHRENOLOGY MADE EASY.

CHAPTER V.

Although each faculty has an individuality of its own, together with its own individuality of action, yet in proportion as the mind is developed and highly cultivated do the faculties act together and in greater harmony. Uncultivated animals, children, and men exercise the faculties singly. One of the best signs of high culture and development is where consciousness is the most perfect, where persons can enjoy the greatest variety of subjects, and be interested in the greatest number of things, and can adapt themselves to the greatest variety of circumstances. It is easy to describe the simple action of the different faculties, but much more difficult to describe one highly cultivated in many different ways.

A partial education, in which the mind has been warped into a special channel, gives characteristics not easily discerned by the phrenologist, as, for instance, where a man is pursuing a special study, science, or invention. A profession in which the mind, the habits, and modes of thinking are all in one direction, so biases the mind and gives such a general character that, when the natural character is described in public, it is not recognized; although the individual examined may recognize its truth.

In cases where a religious change or conversion has taken place, where the entire conduct has changed and smaller or

dormant organs are called into full action, and larger and more active organs restrained, it will not be easy to point out that change, but the original character can be pointed out correctly. Sometimes a child has been fully born and well developed in all parts of the brain, and has been brought up in youth under strict religious influences and training, but has afterwards, on leaving home and all moral restraint, fallen into bad company and gradually yielded to evil influences until, apparently, no good part or principle remains ; yet the organization was originally good, and he cannot have altogether destroyed that organization, although he may have become thoroughly diseased and imbecile. Hence a phrenologist, marking the size of his organs at this period of his life, would give them as relatively the same as when a boy under good influences and of good repute.

He continues to live a fast and demoralized life till he is forty years of age, which is about the time men generally come to their senses, if they come to them at all, and he turns a short corner, after thoughtfully recalling the past and comparing it with the present, reforms, and returns to the principles of his youth, becoming regular in his habits, consistent in his conduct, honest in his dealings, and religious in his life and actions. Now suppose that, after twenty years of such a sober and religious life, he again has his phrenology read, and he compares the three different estimates of his natural qualities, he will not find much difference in the size of the organs ; the difference has been in their various culture and activity. His moral faculties were fully developed at twenty-one ; but he was ignoring their existence, and living exclusively in the gratification of his animal passions and selfish propensities. Although he could blunt, he could not destroy that moral nature : hence, when he came to his senses and turned from the evil of his ways into a moral career of life, he found all the moral faculties ready to be called into action, and to be made more and more responsive to the demands made upon them.

By a change of life and the force of circumstances, a smaller organ may be called into its highest degree of action, and for the time being appear to be much larger than the real size indicated ; also an organ may be largely developed by nature and not show out much in character. It does not follow of course that we use all our large or small faculties because we have them. They belong to our nature and are there, but our use of them is somewhat like some people's praying. They pray when they want something, and when they need nothing special they do not pray. In sluggish

people all the faculties are not exercised unless circumstances require and force them into action ; the same as there are many muscles of the body and perhaps nerves we do not exercise unless we go to the gymnasium or put ourselves into special training. Sometimes the relation between the body and the mind is such that the size of the organ is not so large as would appear from its manifestation, because certain functions and the nerves connected with them have become deranged or morbidly active, and thus overtaxed the natural strength of the faculty. This is particularly true of the drunkard and persons subject to excessive sensuality ; neither Alimentiveness nor Amativeness are necessarily large. It is more frequently the case that smaller faculties become morbid and even perverted than large ones.

We, in our ignorance of all the workings of the mind and the natural language of the faculties, attribute the action of one faculty to that of another. It was supposed by most people in America that Father Miller had Spirituality large because he predicted that the world would come to an end at a certain date in 1843. In about two years he had given 3,200 lectures on the subject ; for at first he simply believed the Bible as he interpreted it, and began to figure up from that standpoint, and he carried the matter so far that before an audience he would demonstrate in figures in fifteen different ways that the world would come to an end at a certain time. In my lectures at that time I told my audiences that he had not Spirituality large, nor was he governed by it ; but he had faith in figures and was governed by them. Some of his followers, however, may have had Spirituality large.

The first convert to the spiritual rappings and communications out of the Fox family had Spirituality and Veneration small and Causality large. He began as a doubter to investigate the subject, and said if so and so takes place and such and such answers are given I will believe ; and such and such answers were given, and so and so took place, and, as he was a man of his word, he stuck to his promise and to the Spiritualists. Many men try to cut a figure, talk large about themselves, cock their hats upon one side, and do all they can to attract attention ; they are, therefore, said to have Self-Esteem by those who do not know the natural language of the faculties ; but Self-Esteem does not act in that way, although Approbativeness does. Many are supposed to have Secretiveness large when they are only diffident and are afraid to speak. It is not safe to trust to hearsay, nor always to appearances ; the best way is to suspend judgment until the head reveals the truth.

The faculties act in wide-awake persons as beasts in the forest, and as men in society; they want to rule and be master. The more active faculties appear as though they wanted to monopolize in the mental council and keep other faculties subordinate. In other words, there are leading faculties, one or more, in most minds; for if they are not larger by nature, circumstances may have required their action so much that they are more susceptible than others. It is well to ascertain at first, if possible, what faculties are in the ascendancy, and give them their due influence over the whole mind. Some faculties are hereditarily large and active. The mental quality comes down in families for several generations, and this truth applies to both good and evil tendencies, which sometimes can and sometimes cannot be easily discerned. No kind of genius is altogether the result of the faculties as recognized by the organs; for the physical organization, and especially the state of the nervous system, has very much to do with genius. A genius on the battle-field, in the shape of a good fighter, needs a good healthy stomach and muscle, as well as courage and presence of mind. Three men may have the same phrenological developments, but from chance each may pursue a very different course or career. One is every way adapted to science, medicine, chemistry, or anatomy, by having a strong vital organization. The second, with the same developments and a predominance of bone and muscle, is inclined to be a machinist, engineer, or architect. The third, with less of the animal and much more of the mental and nervous temperaments, which give a higher tone and quality to the mind, develops a tendency to art. Thus it takes but a little change to make a scientific man into a poet, novel or descriptive writer; while the same faculties, with the addition of two degrees in the back head, and a coarser and more vital organization, would make a good cattle dealer and butcher.

Temperament has much to do with tone and direction of mind. Every faculty has its upper or spiritual, and its lower or physical action. Organs acting with those in front appear to a better advantage, and are more intellectual and influential than when acting with the organs back of it. So, when the faculty is in sympathy and acting in conjunction with organs above it, its influence is more elevating and refining than when it acts with the organs below it. There are certain faculties that are the centre and stimulators of those in the same group. *Vitateness* is the first faculty brought into action, and gives a desire to exist. Having that desire, which is the first step in mental life, the next awakened is *Alimen-*

tiveness, which gives a desire for nourishment ; which awakens Acquisitiveness to get what is desired ; which awakens Secretiveness, which supplies the manner of securing it ; which awakens Combaticiveness to overcome all the obstacles, and, if necessary, calls on Destructiveness to carry out its purpose, and not unfrequently Cautiousness steps in to shield from danger ; and, as life becomes complicated, more and still more faculties are called into action.

Conjuality desires and seeks a mate, one's own companion, to be constantly with, which matures into marriage and union for life. This desire awakens Amativeness, and leads a person to seek one of the opposite sex for that companion. Then Parental Love is awakened with the tender object to live and care for ; then, with the family tie and bond, which strengthens with the birth of children, comes the necessity and desire for a permanent home, which brings out the function of Inhabitiveness ; then, with the growth of families together, the organ of Friendship is awakened, resulting in what we understand as the social state.

Individuality wants to see everything, and that is all it does ; by seeing it awakes Form, Size, Weight, Colour, Order, Calculation, Locality, and Eventuality ; each taking note of that which belongs to its own consciousness, so that by the act of seeing all these other faculties are awakened. The action of the perceptive faculties in acquiring so much knowledge naturally stimulate the reasoning organs above to inquire how these things can be, which leads to investigations as to the origin of these things, their condition, action, and relation to each other as well as their use.

Self-Esteem is also a central organ and stimulates other organs to action. Conscientiousness is another and has a powerful influence on all the different faculties of the mind ; Benevolence does the same thing in its own way.

It should be borne in mind that a cultivated organ does not show through its organ the full extent of its cultivation ; especially if that cultivation commenced late in life, or after the skull had ceased to grow larger. The mind has to act on the brain, and the brain has to grow so as to require more room, and it acts first upon the internal table of the skull, and then on the external, before there is any apparent change perceptible. Some skulls are more easily acted upon than others ; just as some minds and brains are more vigorous than others. There are cases on record where brains, heads, and minds have gone through material change after fifty or sixty years of age. The late Sir Josiah Mason, of Birmingham, was an instance in point.

L. N. F.

E. T. CRAIG, EDUCATIONALIST AND SOCIAL REFORMER.

In our last number we noticed a work published in his old age by Mr. E. T. Craig on a subject of vital importance, which has occupied his attention all his life: we now purpose giving a few particulars of a busy and useful life now drawing to its close.



A few young working men who were members of the Manchester Mechanics' Institute in the years 1825-6-7, finding the long hours of labour prevented their participating in the advantages of the classes for scientific study, determined to organize what they termed a Utility Society. Mr. Craig was one of the most active members of the Society, and the father of the lady who afterwards became his wife lent the room in which they met to carry on their studies and scientific experiments, and to hear lectures, which were delivered on Sunday afternoons. Subsequently a larger room was rented over a stable in Salford, with a view to inoculating young working men with the principles of Social Science.

The success of this co-operative effort for self-improvement stimulated Mr. Craig to a still more advanced experiment, in the organization of a co-operative society near his own dwelling, of which he was appointed president. A library and reading room was opened, classes organized, and occasional lectures delivered by the president and others; also social science classes started. This society was the first to start co-operative production. Several of the members were fustian cutters, and they began the manufacture of fustians, and met with an encouraging demand, but lacked the capital necessary to develop the trade. Two families of the society adopted a united family system and took jointly a large house, but practical experience showed that they were neither educated to the new conditions, nor were the conditions such as to promote harmonious results. Mr. Joseph Smith, of Salford, became active in promoting co-operation, and, finding the Sunday school successful built a number of cottages, with a long room and an ante-room over all. The young men of the Utility Society became active teachers in the co-operative school. From a hundred to a hundred and fifty youths attended the classes and several of them afterwards became well known as public teachers and lecturers.

Gratified with the results attained in Manchester and Salford Mr. Craig became very active in promoting co-operation in the neighbouring towns of Oldham, Rochdale, Stockport, etc. Societies were established in various places, but they were few in number and not on sound principles. Some both bought and sold on credit, while the managers were poor book-keepers; others were badly managed and soon fell into confusion. Mr. Craig held then, as now, that credit is an evil, and that rent and interest should be abolished by cash payments. Seeing that the societies were getting into confusion, and that there was no controlling or guiding council, he advised the appointment of delegates from the various societies to form a congress, with power to frame regulations for the guidance of the societies. The first congress was held in Manchester in 1831, when, on the recommendation of Mr. Craig, systematic organization and education was resolved upon. In the course of a short time a number of lecturers or co-operative missionaries were appointed to various districts, receiving weekly wages from a common fund.

During the same year the *Lancashire Co-operator* was started, and Mr. Craig became its first editor. Its object was "to expose to the workman's view a real picture of his situation, to awake him to a sense of his powers when in unison

with his fellows, to arouse him from his lethargy, like Hercules from his slumbers; not to deeds of violence, not to take from others that which they have already extracted from him, but in a bold, vigorous, and free inquiry into the causes of his mental and physical degradation, and to an investigation of the proposed remedy—co-operation—and the production of new wealth, hereafter, for his own use and benefit."

It was while engaged in these useful labours in Manchester and elsewhere that Mr. Craig was invited to organize an agricultural co-operative farm at Ralahine, County Clare, Ireland, an account of which we gave in the magazine of January. The "History of Ralahine" was translated into the Italian, German, and French languages, and the example set by the experiment has been followed with happy results, both on the Continent and in America. For more than fifty years he has held the conviction that the system of Participation of Profits which he introduced in his plan at Ralahine would prove a great boon to the labourer and an advantage to the capitalist. The system was adopted in Germany in 1847, and has continued down to the present day under three generations of proprietors. According to Professor Von Goltz the average earnings of the agricultural labourer in the German Empire is £33 4s., while the average income of the co-operators in participation of profits is £58 18s. each labourer. Similar success has attended other efforts in the same direction.

On leaving Ralahine, Lady Noel Byron invited Mr. Craig to organize an industrial school, where labour in the garden or the workshop should alternate with intellectual culture, and with the happiest effect. This was in 1834, and the plan is now very successful under Government support and supervision. In 1836 the subject of our sketch became editor of the *Star in the East*, the first weekly newspaper devoted to the advocacy of co-operation. The journal was very influential at the time, and ran until 1840.

Mr. Craig next interested himself in the promotion of a scheme for the purchase of land to be cultivated on co-operative principles, but the project came to nothing, and being without employment, he turned his attention to public teaching, and as a lecturer on Co-operation, Phrenology, Psychology, and kindred subjects, visited nearly every town in the kingdom. His labours in this line continued until 1856. During this time a great change had taken place among co-operative societies. Congresses were not held; many societies had ceased to exist owing to adverse circum-

stances ; the missionary lecturers had long since discontinued their labours ; and, with the exception of Mr. Craig, no one visited the struggling co-operative societies. A visit of his to the Masboro' Society resulted in a discussion between him and Professor Cairnes, which is reported in his pamphlet on "Work and Wages."

While lecturing on phrenology and kindred subjects Mr. Craig's attention was attracted to the strange phenomena connected with animal magnetism, and as there seemed a possibility of its solving certain mental phenomena, he began assiduously to investigate its principles, and although he failed to satisfy himself as to the truth of much that was claimed on its behalf, he admitted the possibility of thought-reading, or of the transmission of mental impressions, and gave some remarkable expositions in Edinburgh, to which city he was invited by Mr. George Combe and Mr. James Simpson, the writer on education. He had two committees formed for the investigation of his methods. One was composed principally of literary men, and included such men as Professor Wilson, the Messrs. Chambers, George Combe, etc. The committee met at the house of Mrs. Crowe, author of the "Night-side of Nature." Various experiments were made, and in one case to demonstrate the important fact that the function of the nerves of feeling could be suspended, so that painless surgical operations could be performed. A young man was rendered insensible to feeling, and in that state a double tooth was extracted by Mr. Robert Nasmyth, Surgeon-Dentist to the Queen. The subject showed not the slightest sign of feeling. Mr. Craig was afterwards informed that Dr. Simpson had adopted his methods with certain patients ; subsequently, as is well known, he applied chloroform for the same purpose, and was made a baronet in consequence. Mr. Craig's experiments called forth so much opposition and misrepresentation that he felt compelled to issue a monthly journal, entitled *The Annals of Mesmerism*, in which some of his demonstrations are recorded.

Eventually Mr. Craig was compelled to relinquish lecturing on account of his health, and after a few months' occupation in the Post Office, he became principal of the Rotherham and Masboro' Mechanics' Institute, which he conducted with signal success. In 1858 he again became connected with the newspaper press, first as editor of the *Leamington Advertiser*. He subsequently established the *Brighton Times*, and also started the *County Express* for the proprietor. Afterwards he was appointed editor of the *Oxford University Herald*.

In addition to these labours, which were necessary for

bread-winning, Mr. Craig's mind was ever busied with possible improvements in connection with the social state, and he has thus attached his name to a number of important inventions and discoveries. At the Exhibition of Arts, Industry, and Manufactures, held at Cambridge in 1873, he received the highest prize, a silver medal, for the greatest number of useful inventions, the number registered in the public catalogue being twenty-seven. One of the inventions was devised to give perfect ventilation to railway carriages; another was for saving life at fires. Mr. Craig is also the inventor of a system of ventilation without draughts, dust, or inconvenience, which has been successfully applied to many large establishments. He likewise claims to be the inventor of an ash-closet, which was pirated by a friend who made a large profit out of it, while the originator got nothing but his pains. In fact, he seems to have been one of those "geniuses" who can do anything better than make money. However, his confidence in his method of ventilation was such that he removed from Manchester to London, where he was beginning to reap the benefits of his years of industry and thought, when he was suddenly stricken with bronchitis, which has practically prostrated him for the last six years.

It would take a volume to recount all Mr. Craig's useful and philanthropic labours. Amid all his various preoccupations, however, he never lost sight of his first love, co-operation. Of late years he has directed his attention to the question of organization and co-operation in America, and has published numerous papers in the *American Socialist* and other Transatlantic publications. He also organized a plan for the federation and co-operative self-employment of the members of the building trades, which was successful so far as the organization was concerned; but time and capital were required for its full development.

It is a striking fact that in the Government Land Bill for Ireland there was not a single clause, paragraph, or sentence which had reference to the condition and interests of the Irish labourers; and it is to Mr. Craig that belongs the credit of first directing public attention to this fact in the columns of the *Co-operative News*, with the result that when the Bill was in committee clauses were inserted giving the labourers, as Mr. Craig suggested, the privilege and protection of the Land Court, and enacting that for every twenty-five acres occupied by a farmer a cottage suitable for a labourer should be built, with half an acre for garden culture, at a charge of eighteen-pence a week.

Although bedridden during the winter months Mr. Craig

is still busy in his favourite field. We believe he is now devoting his attention to evolving a practical method of organization for an association to take up the land of evicted tenants, and convert them into co-operative farms, after the manner of Ralahine, so far as employment and rental are concerned.

Mr. Craig is the author of several works on phrenology and kindred subjects.

The following phrenological notes, together with the portrait, will afford a fair idea of the organization of the man who, throughout a long life, has been so variously busy and useful.

The central developments of the brain are large from the root of the nose to the back head. He has prominent perceptive faculties, qualifying him for either scientific or literary pursuits, and is not wanting in the faculties for exact science. He also has the organs that give him ability to systematize and organize, to work by rule, and sufficient width of head between the ears to give energy to put his plans into execution.

He is versatile in talent, ingenious in contrivance, and has ample power to embellish, set-off, and enlarge upon his ideas, as shown by the width of the temples and above. His large perceptive faculties, with Eventuality and Comparison, give him great power to collect facts, acquire knowledge, and present what he knows in an agreeable, lucid, and instructive manner. He has a favourable organization to teach, lecture, or write. He is about equally developed in the qualities to acquire, retain, and communicate knowledge, and in the power to invent, originate, and deal in abstract thought. He is also very sagacious, intuitive, and of a penetrative cast of mind. Such an organization cannot help engaging in practical and useful works, especially as connected with the wants and conditions of mankind.

His natural refinement, taste, and imagination, with large Language, qualify him to express himself in a free, easy, graceful style, enabling him to present many unpleasant truths in a pleasing and acceptable manner. The moral brain, especially Benevolence, is largely represented, which disposes him to take an interest in the welfare of mankind at large, but especially in that of the more dependent class. He has great firmness and tenacity of purpose, and is quite decided in purpose, tenacious in his plans, systematic in his arrangements, and methodical in his life and habits.

OLD Fuller's maxim is still full of wisdom: "If thou art a master be sometimes blind; if a servant, sometimes deaf."

GEORGE COMBE.

THE "CONSTITUTION OF MAN" AND "MORAL PHILOSOPHY."

During the sojourn of Dr. Spurzheim in Edinburgh in the early part of 1828, Combe was naturally much in his company, and felt deep satisfaction in thus having the opportunity of studying the character of the man whom he regarded as his master in philosophy. The respect and admiration he had conceived towards him through his correspondence with him and from reading his works became almost enthusiastic. Writing to Dr. Elliotson on March 4, 1828, he says :—

"Dr. Spurzheim has produced an excellent effect here. He has given two popular courses, both largely and fashionably attended; and he has given also a course to eighty students, who have been delighted. He has been incessantly engaged to the parties of the most respectable people in Edinburgh, and has excited high esteem by his great talents, great attainments, and unassuming gentlemanly manners. Mr. Scott says he at one time entertained a prejudice against him, but confesses it was from ignorance; that the more he has seen of him the more he has admired him; and that he is now satisfied that he is truly a great and a good man. In all this latter part I most cordially concur. I can testify also that Dr. S. speaks in the very highest terms of Dr. Gall; and, both privately and in his lectures, ascribes to him the sole merit of discovering and carrying far forward the physiology of the brain."

Extended observation of the anatomical relation of the organs had induced Spurzheim to change the order of numbering them. The position of the organs remained the same; but the space allotted to several was reduced in size, and places were assigned to Eventuality and Wonder. These changes were seized upon by opponents of phrenology as proofs of its absurdity. Combe pointed out that in the modifications which had been made in the new bust "the essential forms and relative situations of all the organs have been preserved."

A great loss to phrenology happened in the month of August this year (1828), Dr. Gall, the founder of the science, dying on the twenty-second, at his residence, two miles from Paris. There had been for a number of years a misunderstanding between him and Spurzheim; but the latter on hearing that Gall was dangerously ill, hastened from England to see him. He was, however, too weak to see any one except

his physician, and he died without a formal reconciliation with his old friend. He had, however, expressed a desire to see him, and Spurzheim had waited for an opportunity, which did not occur.

The origin of the dissension between the two founders of phrenology was this: They had been working together for several years; Spurzheim made various discoveries in relation to the anatomy of the brain, the credit of which was given to Gall; and Spurzheim, although nothing loth to acknowledge Gall as the originator of the science, was desirous of having his own part in establishing it recognized; hence they separated. Gall maintained the system as at first propounded, while Spurzheim advanced with experience and new discovery, and modified, improved, or altered as he acquired additional knowledge from practical observation. His system, therefore, ultimately differed considerably from that of Gall.

To Combe himself, perhaps to the whole phrenological world, the most important event of 1828 was the publication of his "Essay on the Constitution of Man." In deference to the evangelical party, he omitted the portions relating to the lower animals, and to human responsibility; wishing the "Essay" to be entirely practical and not doctrinal; nor could he understand how the views he espoused of the natural laws could be regarded in any way as opposed to a belief in eternity. He was anxious to show that his views were fair inductions from the facts, and asked those of his friends who differed from him to explain wherein his teachings were contrary to reason and common sense. One gentleman urged him, for the sake of his salvation, to abjure the opinions advanced in the "Constitution"; to whom Combe replied as follows:—

"I received your very kind and truly Christian letter of 13th March, and gave it all the consideration which so important and friendly a communication required. It may be proper to inform you that I was religiously and evangelically educated; have been from my infancy familiar with the great standards of our national faith; have read the best authors who expound it, and am no stranger to the contents of the Bible. I have always sat under evangelical preachers, and still have seats in Dr. Gordon's church. During the greater part of my life, I have been most punctual in my attendance at church, and up to this day make it a rule to do no business on Sunday. I have examined religion and have reflected on it, in singleness of heart and with a sincere desire to find the truth; I have discussed the different views of it that pervade

society with divines, philosophers, and men of plain understanding ; and, in short, have used every lawful endeavour to understand and to arrive at a sound judgment on the subject. The result has been the attainment of views in religion that harmonize with all my faculties, that afford the greatest comfort and consolation to my mind, that animate me in active life, sustain me in adversity, and afford ample satisfaction as to the future. That these views may differ in some of their shades from those which you embrace is highly probable, because our minds differ ; but that their great basis is the same appears to me obvious from the perfect harmony between your practical spirit and mine. In matters of faith, then, my dear sir, let each of us follow that which appears to himself best. According to my views you are of an excellent spirit, and have no cause to fear as to salvation. If you can possibly extend the same good hope as to me, I shall be well pleased, and your own benevolence, I am certain, will be gladdened. But if your conviction forbids this, then I am not offended, but trust that your fears on my account may ultimately be disappointed."

Combe did not experience professionally any ill-effects from the publication of the "Essay"; but socially the prejudice against him was very strong. "When Dr. Welsh had a call to Edinburgh Combe dared not openly assist him (says Mr. Gibbon), because his advocacy would have been injurious to his friend." The evangelical party "regarded him as a dangerous infidel, and would not be associated with him in anything, however good the object." An effort was made in the Phrenological Society to compel him to discuss the questions raised by his theories on the natural laws ; this, however, he refused to do, as it would have brought about the break-up of the Society. The persecution to which he was subjected was such that many persons were unwilling to work with him in the furtherance of objects of a beneficent nature.

In the spring of 1829 Combe visited Dublin by invitation, and delivered a course of sixteen lectures, which were attended by some of the best minds of the Irish capital, including clergymen, physicians, barristers, fellows of Trinity, and ladies. He visited Mercer's Hospital, the Richmond Lunatic Asylum, and the Penitentiary, and at each of these establishments he made observations on the inmates, which afforded remarkable evidence of the value of phrenology in defining character. One important effect of his visit to Dublin was the establishment of a phrenological society there, with representatives of the clerical, medical, and legal professions amongst its office-bearers. The society worked energetically, and was the

means, through Combe, of inducing Spurzheim to deliver a course of lectures in Dublin in the following spring.

The publication of the "Constitution of Man" had brought the author into contact with Dr. W. E. Channing, and it was particularly gratifying to him, on his return to Edinburgh to receive from that gentleman a copy of the American edition of the work, which had been issued with an appreciative preface by Dr. Channing's brother, who was in the medical profession. This proof that the Essay was considered useful helped him to bear with equanimity the ill-will it had aroused against him at home. "Indeed," says his biographer, "he had now such a wide circle of admiring friends and followers, and had so many subjects of serious interest to occupy him, that he suffered little from the loud condemnation of his opponents."

He was at this time maturing his ideas on a system of moral philosophy in accordance with phrenology with a view to publishing a work on the subject; and in a letter to Dr. Channing, dated June 18, 1830, he gave a rough draft of his project. He says:—

"I have the impression that morals and religion are at present in the same state as that in which the physical sciences existed prior to the practice of the Baconian philosophy. As astrology is to astronomy, or alchemy to chemistry, so are the present systems of religion and morals and political economy, as branches of the science of man's nature, to the real science of man, which is in part unfolded, and will in the future be completely developed by phrenology. In the works on human nature now existing there is much of truth, but very little evolution of the principles of it, in the explicit knowledge of which its consistent application appears to me to depend. I have projected an outline of a system of moral philosophy, but feel myself unequal to the execution of it, the mere stating of which, however, will communicate my views."

He then proceeds to divide his proposed system into branches. Branch 1 would involve an exposition of the physical structure of man, together with the physiological laws that govern them, their mutual relationship, and their relation to the mental functions. In the next Branch he would investigate the organs of the mind, their uses and abuses, their relationship to each other and to external objects, &c. From these premises he would proceed (in Branch 3) to deduce the duties of man as an individual, trace him from birth to death, compare him with the laws of his nature, and show the enormous extent of the misery suffered by aberrations there-

from. Then (4) he would proceed to the duties of man in his private relationship ; showing how much misery is inflicted by erroneous education, by marriages at variance with the laws of nature, by irrational pursuits, &c., all of which evils must be remedied by a knowledge of the science of man. Fifth, the duties of man as a member of society. " In this particular (he says) matters are farther from reason than in the preceding instances. . . Every facility is afforded to the workman to labour or drink himself to death, and every obstacle presented to his labouring moderately, cultivating his intellect, and refining his moral affections and emotions." A proper knowledge of man's constitution and nature, aided by religion, he opines, would lead divines to teach and put in practice every rule that could advance human beings in the scale of rational creatures. Sixth and last, man's duty to God. " Its (religion's) proper object appears to me (he says) to be to embrace within its circuit every interest of man, to direct the mind to the divine origin in the constitution of the human being and external nature, to the legitimate use of man's functions as being the true will of God, to every abuse of these as being transgressions of that will, and to God as being in all instances a kind Creator, a benign Father, and an all-wise Ruler of the world, who instituted man that he might enjoy the felicity of his rational nature, and who exacts no service except that obedience which it is man's highest advantage to give."

Combe concludes his letter by urging on Channing the necessity of beginning all substantial improvement of man by studying and teaching his nature practically.

" Break the spell (he says) of teaching only abstract morality and religious feeling from the pulpit, and fairly commence a system of teaching of anatomy, physiology, and mental philosophy as the ground-works, and then rise through the topics here pointed out as applications, and you would sow seeds which time would ripen into a good harvest. While you proceed on the old plan you may delight, instruct, and lead to virtue the few who fall within the sphere of your personal influence, or whose high moral organs enable them to comprehend your books, but you will never reach the springs of conduct in the mass of the labouring and money-making population. It is only superior natures whose sympathies respond to yours ; teach first principles, and you will erect standards by means of which men less gifted may discover at least their shortcomings, and consent to be directed by higher views than their own."

Dr. Channing was at St. Croix, in the West Indies, when

the above letter reached America, having gone thither for the good of his health. His answer was therefore delayed. Writing on April 11, 1831, Dr. Channing, after explaining the cause of his silence, and that he had not yet had time to study phrenology, proceeds:—

“You wrote me on another subject of far higher interest [than phrenology], on which I could not have given you my views without covering many pages or sheets, and this you may suppose I was willing in my want of health to defer. I refer to your outlines of moral philosophy. Your opinions on this first of sciences seem to be very valuable. With many of them I entirely accord. That our physical nature has been too much overlooked by those who have treated it I fully agree. That its end and means have been very imperfectly understood is equally true. It is my hope to do something in this field; and I should undoubtedly differ from you in some important particulars. You would place me among the ‘abstract’ authors, who do not study and teach human nature practically; and very possibly you would censure me with some reason. I earnestly wish that you would supply the defect by executing your own plan. You doubt your ability; but the conception of it shows that you have no reason for fear. But I must not trust myself with the subject. . . . The success of your “Constitution of Man” in our country has been such as must gratify and reward you. It has found general favour. The Swedenborgians (who, in fact, republished it) are particularly interested in it, why I know not, for I read few of their books. I have heard high commendation of it from a distinguished Calvinistic divine, and as to the more liberal classes, they have highly approved and recommended it. Some of its doctrines have found their way into the pulpit. I have met on this island a lady from America, of much distinction in the fashionable world, who had brought it with her as a text-book, and lent it very freely to the intelligent here. She tells me that a gentleman of Philadelphia bought 50 or 100 copies of it—all he could find—for distribution, believing that he could not do more good. The common remark, however, is that the book is excellent, in spite of its phrenology.”

Although Dr. Channing’s approval of his projected work on moral philosophy gave Combe encouragement, he did not attempt to carry out the idea until 1835-36. He then attempted to formulate his views of moral philosophy into a system, in a series of lectures delivered in the evenings to the working classes. These discourses were published in the United States as a complete system, and during his

sojourn in America (1838-1840) he revised and amended his work, and issued it with an affectionate dedication to Dr. Channing. On his return to England he republished the work here, with further additions and emendations.

The Moral Philosophy is simply an expansion of the doctrines expounded in the "Constitution of Man." As, in the latter work, he sought to reconcile religion and nature, so in the former he endeavoured to give practical application to the enlightened principles which should regulate social intercourse and duties. His letters indicate how deeply he meditated on the great problems of life and religion, and how, step by step, he came to the convictions which are set forth in his works: convictions which at the time brought upon him the name of "infidel," although his theories are now generally accepted unquestioned. In 1828 he wrote:—"In my humble opinion, a new translation and a new interpretation of the Bible will take place in half a century, and it will then be received in reference to the actual nature of man in general, and not in reference to any individual, however great his talents." Strangely enough, the new translation which he foresaw would be required is now in part an accomplished fact, the revised New Testament having been issued within three years of the time he specified, while the revision of the Old Testament is near completion.

In 1830 the third edition of the "System of Phrenology" was published. In it Combe made some alterations and modifications in the naming and numbering of the organs. The name of No. 8 (or 9, according to the American numeration) he changes from "Covetiveness" to "Acquisitiveness," "Inhabitiveness" he changes to "Concentrativeness" (now divided into Inhabitiveness and Continuity), and adds "Alimentiveness" (unnumbered), "Wonder," and "Eventuality." After the publication of this edition, Combe made no further alterations in the numbers or nomenclature of the phrenological organs; those in the fifth and last edition (1843) being the same as those in the third. On its appearance (in 1830) the work again had a quiet but steady sale. Still the position of the science was anything but satisfactory. The public interest in it had somewhat abated; the influence of the evangelical party had withdrawn many members from the society, and its funds were so low that it was quite insolvent. Combe's lectures, too, failed to draw such large audiences as they had formerly done. In spite of these symptoms of decreasing interest, however, the various works on phrenology continued to sell, indicating that people were reading more on the subject than formerly.

CORSETS AND HEALTH.*

BY DR. DIO LEWIS.

The Boston Normal School for Physical Education trained and graduated 421 teachers of the new School of Gymnastics. The graduates are about equally divided between the sexes. A considerable proportion of the women were school-teachers; in broken health, seeking in the new profession a better means of living. The average health of the women was, in the beginning, lower than that of the men. But, with the removal of the corset and the long, heavy skirts, and the use of those exercises which a short and very loose dress renders easy, a remarkable change ensued. In every one of the ten classes of graduates, the best gymnast was a woman.† In each class there were from two to six women superior to all the men. In exhibiting the graduating classes from year to year on the platform of Tremont Temple, women were uniformly placed in the more conspicuous situations, not because they were women, but because they were the finer performers. Dr. Walter Channing, who was one of the professors in this normal school, often spoke with great enthusiasm of the superiority of the women.

A convincing experiment was made upon a large number of girls at Lexington, Mass. A school for young ladies was announced and large buildings prepared. During four years of personal management by the founder of the school, nearly three hundred young women were subjected to a new and peculiar regimen, to determine the possibility of improving their bodies during their school-life, as the bodies of young men are improved in some of the German universities. An exceptionally full curriculum of studies was adopted, and a large corps of teachers, including such distinguished names as Theodore D. Weld, Catherine Beecher, and Zerdahelyi, laboured with enthusiasm in the brain-work. The pupils were pressed harder, probably, than in any other school in New England. The girls averaged about seventeen years of age, and came from all parts of the country, including California, Central America, and the West Indies. They were largely from wealthy families—delicate girls, unable to bear the artificial life of fashionable seminaries,

* From the *North American Review*.

† For the system of gymnastics practised at this institution see "Board School Gymnastics," price 1s.

and were drawn to the Lexington school by its fame for body-training. The constant dress of the pupils, like that of the Normal School, was short and loose, leaving the girls as much liberty as boys have in their gymnasium dresses. The results of the physical training at Lexington are well known:—

On entering the school, pupils were measured about the chest, under the arms, about the waist, the arm, and the fore-arm. The average gain for eight months about the chest was $2\frac{1}{2}$ inches; waist, 5 inches; arm, $1\frac{1}{2}$ inches; fore-arm, about 1 inch. The work was so hard that, with all this remarkable development, the weight of the pupil was often lessened. Of course, the girls came with injunctions from their mothers not to climb stairs, and with letters from family physicians urging moderation in gymnastics, and prescribing the horizontal position a number of days each month. With the corsets and long skirts in which they came, these injunctions and cautions were not unwise; but, with the change of dress, became absurd.

And now, with a full knowledge of all the facts familiar to hundreds of grateful parents, the writer affirms that, giving little or no attention to periodicity, the girls worked through the entire month in those extreme stridings and other vigorous exercises of the legs and hips, contrived to counteract the evil effects of the long, imprisoning skirts, and that in the four years not only was no harm done by this constant and dreadful violation of Dr. Edward Clarke's counsels, but that in no instance did a pupil fail to improve in health. The results may be described as follows: Pupils came with dread of stairs, with back-ache, palpitation, and other sufferings which may not be named here, and in a few months could do the full and hard gymnastic work of the school, dance three evenings a week, go upstairs without symptoms, and walk five to ten miles on Saturday without inconvenience. A common exclamation among the pupils was this: "What a slave I was! Everything was toil and suffering. I have now just begun to live!" And all this happy change came of abandonment of corsets, the adoption of a simple, physiological dress, with the exercise which this change in dress renders easy. The change in health and capacity often seemed magical. If this paper were designed for the eyes of medical men only, certain facts might be given which would surprise them, and leave no doubt that we have utterly failed to comprehend the mischief done to the growing form by the present modes of dress.

The reader may think that camp-life in the mountains of California, a course of training in the Normal School for Physical Education, or four years' drill in the school at Lexington, will account for happy changes without any change in dress. We saw many ladies in the mountains seeking health in long skirts and corsets, and their health improved, but the physiologist will assure us that the improvement could not be muscular and radical. As to exercise in the gymnasium, the observation of thirty years in ladies' seminaries leads to the conviction that girls in corsets seriously endanger their welfare when they try to exercise beyond gentle walking and dancing. All attempts at free arm or leg work must prove mischievous. For many years we have cautioned corseted women against the gymnasium, and have seriously urged easy-chairs and lounges. The advice given by Dr. Edward Clarke, and repeated by thousands of doctors to their lady patients, to lie down as much as possible, and periodically spend a week in bed, is, if a corset be worn, not only wise and merciful, but indispensable. To ladies who declare that they cannot abandon their corsets, the writer uniformly gives the same advice.

The errors in women's dress are :—

1. The corset, which reduces the waist from three to fifteen inches, and pushes the organs within, downward.
2. Unequal distribution. While her chest and hips are often overloaded, her arms and legs are so thinly clad that their imperfect circulation compels congestion of the trunk and head.
3. Long, heavy skirts, which drag upon the body, and impede the movements of the legs.
4. Tight shoes, which arrest circulation, and make walking difficult. High heels, which increase the difficulties in walking, and so change the centre of gravity in the body as to produce dislocations in the pelvic viscera.

Lack of space forbids details under each of these heads, so we speak mostly of the corset—by far the greatest evil.

Do women practise tight-lacing? Since beginning this paper, we have asked this question of more than a score of ladies. The answer is "No." One lady, whose waist has been reduced more than eight inches, declares that she has heard about this lacing all her life, but has never seen it. She adds : "I wear a corset, though, from my immense size (nineteen inches), you would hardly think it. And I fancy that ladies generally manage about as I do ; they wear a corset to keep their clothes in shape, but it hardly touches

them." In forty years' professional experience with the wearers of corsets, we cannot now recall a single confession, even from those who had reduced their waists by from ten to fifteen inches. One can write freely on this subject, with no fear of hurting the feelings of lacing women, for no one of them will imagine herself guilty; and one can speak as disparagingly as he pleases of diminutive figures, for the smallest woman regards herself as "perfectly immense."

We have talked with several corset-makers, and sum up their testimony as follows:—Fashionable ladies, and thousands who imitate them, purchase corsets which are from three to ten inches smaller than their waists, and then lace them so as to reduce their waists from two to eight inches. More than one corset-maker has placed the averages higher than these figures.

Many inquiries have been made of those artists who make a special study of the female figure. Their testimony is stronger than that of the corset-makers. One artist, who is a recognized authority in this department, has assured us that in painting portraits of women, no good artist will paint the laced figure. The subject must hide with drapery what the artist regards as a hideous deformity. An eminent artist, with a good eye and thorough knowledge of proportion in the female figure, permitted the writer to sit by his side on a thoroughfare when ladies were out in force, and expressed his opinion about their waists.

"That one is reduced six inches; that one ten inches; that young lady five; that one twelve; that large woman has reduced her waist fully fifteen inches." "What proportion of these ladies would you paint in their corsets?" he was asked. "I have not seen one that I would paint without asking her to cover her deformity."

If any one will devote an hour to a study of the female figure as seen in classic art, and will then give another hour to street observations during the fashionable promenade, with an aching heart he will go over to the ranks of the discouraged. He cannot forget that these are to be the mothers of our next generation.

THE SECRET OF ELOQUENCE.—Henry Clay, the American orator, said he owed his success in life to one single fact. "At the age of twenty-seven I commenced, and continued for years, the process of daily reading and speaking upon the contents of some historical or scientific book. These off-hand efforts were made sometimes in a corn-field, at others in the forest, and not unfrequently in some distant barn, with the horse and cow for my auditors."

PROFESSOR RIBOT ON MEMORY.*

The translation into English of the excellent and most suggestive work on Memory by the distinguished French philosopher, will mark a definite advance in the study of this important subject. M. Ribot holds a leading position in France among that small group of dissentients from the "orthodox" psychology of the old schools, who are engaged in applying the modern biological doctrines of evolution and parallelism to the facts of the human mind. Though the title of the volume, "*Maladies de la Mémoire*," would lead to the supposition that the work is chiefly pathological, M. Ribot's real interest is rather physiological and philosophic. He uses the diseases of memory principally as a means of investigating the nature and normal activity of memory itself; and he has been eminently successful in deducing from his investigations a new and important theory of this fundamental psychical faculty. In all departments of biological science, indeed, the study of morbid conditions helps to throw valuable light upon the study of normal function. M. Ribot has here abundantly shown that the same useful instrument may well be made to serve a similar purpose in psychological investigations as well.

Although the book is but a small one, such is the amount of matter that the author manages to get into it that it is impossible to do more than refer to one or two points, which appear to us as the most striking and original. In the first place, he regards memory much in the same light as the phrenologists do, not as it is generally viewed by the metaphysicians, that is, as a separate "faculty of the mind;" and he gives to Gall, "the first to protest against this view," the credit of having "assigned to each faculty its own special memory, and denied the existence of memory as an independent function." Indeed, his views in regard to the brain and mind, are quite in accord with the principles of phrenology. He says, for instance, "In the same person, then, an unequal development of the different senses and different organs induces unequal modifications in the corresponding portions of the nervous system; hence unequal conditions of recollection, and, finally, varieties of memory;" and he goes on to add: "It is even probable that inequality of memories in the same person is the rule rather than the exception." He enunciates the two following propositions:—

* "*Diseases of Memory: an Essay in the Positive Psychology.*" By Th. Ribot. (London: C. Kegan Paul and Co.)

"1. Every recollection has its seat in a definite and determinate portion of the encephalon ;

"2. The encephalon and the cerebral hemispheres are made up of a certain number of totally differentiated organs, each having its special function to perform, while remaining in the most intimate relations with its fellows."

And it is upon these two propositions that his whole theory of memory is based. He likens the mind to a number of clerks employed in a large establishment, each with a given and circumscribed duty to perform ; when they are all at their posts and equally active, a good all-round memory (or intelligence) is the result ; when one is absent the others manage to get through the work without any particular hitch being felt ; but when several are absent or inefficient, the case is quite different.

The second important point in M. Ribot's theory of memory, is the "law of regression," which is here for the first time distinctly formulated and inductively established, although the idea has often been hinted at in phrenological works. From a copious examination of various recorded cases of loss of memory, partial or total, he shows that the process of forgetting follows a definite and regular order. The destruction of memory begins with the most recent recollections, lightly impressed upon the nervous mechanism, and representing nascent organization in its feeblest and loosest form. It proceeds gradually to the somewhat firmer and more frequently repeated impressions of previous life, and ends with the ingrained sense-memory, long since hardened with an integral part of the organism, and representing organization in its highest and most developed stage. In short, as the author briefly puts it, "Amnesia advances progressively from the unstable to the stable." In other words, the decay of memory "follows the path of least resistance—that is to say, of least organization." In accordance with this law, M. Ribot shows that memory in the process of growth follows the same path in a contrary direction. He is further of opinion that the law "confirms a common truth—viz., that memory depends upon the constitution of the brain, and that in idiots and imbeciles the condition is abnormal."

These are only a few of the many ideas and theories with which the work is filled, and which shows that the author is content to "follow the facts," without prejudice or preconception. It is a pity the work was not a little better translated. It seems to have been done by some one who had but a school-boy's knowledge of French, and a very poor knowledge of idiomatic English to boot. Nobody but the veriest tyro in French would translate "*L'état bête*" into "brute state."

DISEASE GERMS.

For a long time it has been thought that a large group of diseases, including many of the most fatal, were produced by specific germs inhaled by the sufferer with the air, drank with some fluid, or deposited on some sore place. Through the researches of Pasteur and others the general facts leading to this theory are now placed beyond doubt, and in several cases a well-trained observer can distinguish one disease germ from another, and an experimenter like Pasteur can prove his conclusion right by inoculating some animal with the germs, and producing in it the expected disease. Experiments of this kind, merely to gratify curiosity, could not be defended, but they have a different character, when, as in Pasteur's case, they are guided by a benevolent purpose, and have enabled him—besides assisting the physician to lessen human suffering—to show farmers how to secure sheep, fowls, and pigs from disorders that occasioned a sad devastation. The non-professional and elementary student cannot expect to do more than form a notion of the sort of things disease germs are, and how they act. When one particular organism is said to be the specific germ of splenic disease in sheep, and another of an enteric fever in man, it must not be assumed that either the germs or the diseases are specific in the old and very narrow meaning of the term. This we shall see as we go on. The most common forms of disease germs are those of extremely minute rods—bacteria, or minute round bodies called micrococci (little berries), by no means a good term, as the objects are not really like any berry.

Half-a-dozen Preston salts bottles are convenient things for experiments that will throw some light upon these subjects, although they may not exhibit any actual disease germs, but only some of their more innocent relations, or perhaps objects specifically the same as disease germs, but not in a mischievous condition. Put a little water into four of the bottles, and add to one a pinch of chopped hay; to another a bit of raw meat as big as a small pea; to a third a little dust swept from the walls or floors; put a little milk in the fourth; a little flour paste in the fifth; and a little boiled rice in the last. Place all in a warm room, and watch from day to day. As soon as a thin skin (pellicle) forms in any one, put a drop on a slide, cover with thin glass, and view with a power of about one quarter of an inch, which with a ten-inch tube microscope will magnify about 200 linear with an A or No. 1 eye-piece. The observer is sure to see a large number of very small,

straight objects, some quiet, and others moving with a wriggling motion. Some of these may show with that magnification that they are beaded, or contain minute beads, others would show it with a much higher power, and some again are so small and delicate as to defy all attempts to discover structure. After a few days, it is most likely that many rather larger thread-like objects will appear, twisted like corkscrews, and swimming vigorously with a spiral motion. They are, in fact, screw-propellers, and as the lower forms of life are very ancient, their ancestors, no doubt, practised that mode of propulsion millions of years before it was imitated by man. After a little while, longer threads will be found, and probably some branching like the mycelium of the moulds. Most of the disease-germs identified by various observers are, more or less, like the smallest of the little rods discernible with a quarter-inch objective.

The use of experimenting with a variety of infusions is two-fold : first, there is a chance of getting a variety of germs ; and, secondly, different substances favour the development of different kinds of infusorial creatures. Whenever a sunbeam lights up a swarm of motes, there is sure to be amongst them minute eggs and germs of small plants, animals, and objects that lie on the border-land. Professor Tyndall throws artificial sunbeams of electric light through air in glass vessels, and while motes are visible, life will appear, if the germs amongst them are allowed to settle in fluids that will feed them. When there are no motes, a fluid capable of putrescence, but in which all germs have been destroyed by heat, will remain sweet in the purified air for any length of time. Country air on breezy heaths and downs is comparatively free from motes and germs, and on lonely mountains, in calm weather, none are found. As it is most important in thickly-peopled countries to secure breathing-places that are not contaminated, the greatest care should be taken to stop the robbery of open land by adjacent proprietors. Sandy beaches and chalk downs, for example, are invaluable as sanitoriums and playgrounds, and for enabling winds to send pure air to cities. Pasteur has distinguished small, round bodies producing silkworm disease ; little rods producing splenic sheep disease ; others generating chicken cholera, which is common on French farms ; and lately he has identified an organism which can produce rabies in dogs, and which appears to be the source of the poison conveyed in the bite of mad animals.

In the Department of Eure-et-Loire 85,000 animals were inoculated upon Pasteur's plan in 1882. In the last few

weeks 13,000 sheep, 3,500 oxen, and 20 horses were similarly treated without a single accident.

M. Paul Bert has recently injected the blood of a mad dog into a healthy one without communicating the disease. He finds the poisonous microbe to reside not in the secretion of the salivary glands, but in the mucus of the mouth and air passages.

It may be said of these organisms generally that they are capable of growing under different conditions, and sometimes they can be developed under various forms which might be taken to belong to different species. The malignant disease germs can, in certain known cases, and probably in others, either be cultivated so as to preserve their evil power for successive generations, or by supplying them with free oxygen, so that their descendants are less and less poisonous, and finally harmless. Inoculation with the milder forms protects against the action of the more virulent. The moulds that will grow in some of the bottles are related to the useful ferments and also to those which produce disease.—*Knowledge.*

AN OLD MAN'S STORY.

CHAPTER I.

It had been one of those grand old winter days, when the fairy fingers that weave the hoar-frost, and the white-bearded Jotun who casts abroad the snow, and the fierce ice-king whose hands hold the gelid blasts that congeal the floods and bind the earth as in iron mail, had worked their best to transform the world into a scene of rare, but cold and austere beauty. One had hardened the earth and purified the air, another had covered it with a mantle of dazzling whiteness, and the fairy fingers had hung upon every tree and hedgerow, leaving not the space of a pin's point, a fretwork covering more delicate than the finest Mechlin lace. The shouts of the children could be heard over field and farm, and their laughter was as sharp and merry as the clash of the Christmas bells. But anon the day passed, and the moon, sailing aloft in a clear sky, cast over the broad white landscape a bright silvery sheen; and all was still and silent save where, here and there, the ring of skates on the glassy pools, and the jocund laugh of skaters, told of the presence of holiday-makers who were fain to take their fill of the rare sport ere the frost went. These were for the most part of that non-descript sect, neither pure boy nor full man, that prefers the open-air and the rough games to all the comforts of home

and the blandishments of friends, and only consents to creep under shelter when frost nips or hunger gnaws too fiercely.

But as the moon sails higher, and the wind bites keener, they, too, drop off by ones and twos, and, guided by the brightly glowing windows of cottage and hall, seek the bright fireside and the groaning board. They are met and welcomed at the door by the younger members of the family, perhaps by rosy-cheeked cousins and friends, all of whom are anxious to have them take part in the sports of the evening; for the little ones always take it as a special honour and pleasure to be allowed to join in the games when the elder-born of the family "leads the brawls."

Among the youths who were thus loth to quit the court of King Frost was a strong, handsome lad of between fifteen and sixteen. He was one of the last to leave the frozen mill-stream on the outskirts of the village and turn his steps homeward. He was accompanied by a youth of his own age a little way down the village street, where they parted, Bob Saunders turning into a neat cottage by the school, while the other, whose name was William Wade, went on to a bye-lane on the right, where the high-pitched roof of an old-fashioned farm-house showed a broad sheet of snow to the road, set off by the gables and manifold chimneys of additions and out-buildings. He was about to turn into the lane when a sudden thought struck him, and, instead of taking the way to the house, he ran further up the street until he reached the village inn, the Blue Boar, where he was accosted by a man who seemed to have been hiding beneath the shadow of a large elm that overtopped the house.

"Is that you, Frank?" he said, arresting his steps; "I was just going to your house."

"You had better not go, Will," replied the man, "there is nothing but misery there."

"Why, what's the matter?" exclaimed the youth.

"No food, no fire; and Martha and the baby are starving."

"Good gracious!" cried the boy, "I didn't know you were out of work; have you been to father?"

"No, Will, and I will never go again, after the insults he has heaped upon me, and upon Martha, too, who doesn't deserve his reproaches, whatever I may deserve."

"But you must not starve!" exclaimed William, with a huskiness in his voice, "and this Christmas Day, too! Come with me—no; you go home to Martha, and I will bring you something to eat, if I have to steal it."

And without another word the youth retraced his steps as fast as he could go. Instead of going by the lane, he took a

short cut across the orchard, and so round to the back door. As he passed the end of the house he saw that the window-blinds were not down, and, peeping in, beheld the family assembled round the old wainscotted parlour fire, apparently enjoying a quiet chat in the ruddy glow, for the candles were not lit. Will stood looking in at the interesting group for a minute or two, himself unseen, and then, spurred by the task he had set himself, which he knew was no light one, he went round and entered through the kitchen. There was a merry shout by the younger ones as he entered the parlour, and a hearty greeting by the elder ones. Room was made for him in the circle round the fire; but he excused himself for not taking the proffered seat by saying he was going out again directly for a little while.

"Going out again?" exclaimed his mother, who begrudged every moment her first-born son, only home from school the day before, spent out of her sight. "We shall be having supper soon."

"I shall not be long, mother," said Will, as he leaned thoughtfully against the mantel-piece, near his father.

"Where art going?" asked the farmer, looking into his son's face with a kindly smile.

"I am going to do a kindness, if I may, father; and I want you to help me," replied the youth.

"Dost'a? Well, tell us what 'tis, an' a'll help," replied Mr. Wade, his naturally somewhat hard face softening as he gazed admiringly at his son.

Will lowered his voice, and said, "I met Frank Hodder as I came up the street, and he tells me they want food badly; I want you to let me take them something, if ——"

The youth could not finish the sentence; he was going to say, "If I may not bring them here;" but rising emotion choked his utterance, and he waited for his father's reply. Mr. Wade saw the lad's emotion, and looked down so as not to betray his own. Will attributed his turning away his face to another cause.

Frank Hodder and his daughter Martha had married against his will, now nearly two years ago, and he had not forgiven them; nay, if anything, his anger had grown against them since he had learned of the birth of a daughter to them.

The reason of this family trouble was that Mr. Wade was a proud man, and that Frank Hodder was a poor labourer, who had formerly been his chief help, but who, on the first hint that he was looking up his master's eldest daughter, was ignominiously discharged. And yet Frank was by no means an ordinary labourer, being the son of a small farmer who,

from the lack of proper business habits, had fallen into difficulties, lost his farm, and left his son to shift for himself with nothing for his patrimony, and a sensitive heart for his inheritance. Although but a "farm hand," however, he was well educated, and knew how the world was wagging; he was, moreover, anxious that others should be instructed too, and once or twice a week, and on Sundays, he taught a number of boys to read and write, for which cause he was looked upon by the "gentry" of the neighbourhood as a "dangerous fellow."

William Wade, however, had learned to regard Frank as anything but dangerous. To him he had been chief instructor in "wood magic" from his earliest boyhood, and in many other things besides; for not only did he know about birds and all the wild things of wood and fell, but also about the wars abroad, and the commotions at home; for it is of the year 1812 we are speaking, when Napoleon's army was buried in the snows of Russia, and the "Luddites" were setting fire to factories, and destroying the frames at Nottingham and other places where machinery had been introduced to replace hand-work. Those were hard times for poor working people, what with the severe weather (so severe that you may remember the Thames was frozen over), and bread at starvation prices (it could not be bought for less than eighteenpence the quartern loaf), so that there is little to be wondered at if both factory and farm "hands" lost patience under their sufferings, and went to some excesses. The famine-pinched villagers took it ill that farmers held corn up to 112s. a quarter, while they and their children often went breadless. Many sheep were, in consequence, stolen, and many rick-yards set on fire by the wretched agricultural labourers, who knew no better than to copy the example of the work-folk of the towns.

Farmer Wade was one of those old-fashioned Englishmen who loved the Church, the throne, and the aristocracy as part and parcel of the order of nature, and hated those troublesome people who wanted to get the world out of the old, quiet ruts into which it had fallen. He hated grumblers, but above all he hated those "canting meeting-house people," of whom Frank was one; and when he heard, not long after his marriage to Martha, that he was out of work and in sore straits, he swore a big oath, and said "it served them right," and that they "might die for aught he cared." And they would have died, had it not been for Mrs. Wade and Will, who conspired together to supply them with food and fuel when necessary; for Frank's repute as a "Dissenter and an obnoxious fellow" made the farmers and squires unwilling to

give him work so long as there were others to employ. This was a year ago, however ; for while William had been away at school he had not heard much of his brother-in-law, and so had thought he was doing better. Hence his surprise when Frank told him how matters stood.

When he entered the room, it had been Will's intention to draw his mother aside and tell her the state of affairs, and, with her assistance, smuggle something out of the house for the poor suffering ones ; for he knew that his father had forbidden anyone to mention Frank or Martha's name in his hearing, and he was a man quite terrible in his anger ; but when his father spoke to him so gently as he stood pondering the task he had to perform, the thought came like an inspiration to him that he would ask his father to give the help needed. Now, however, as he stood awaiting an answer from his father, who sat there with averted face, he wished he had not done so. He saw a shade cross his mother's face, too, and he knew she trembled on the result of his venturesomeness. This nerved him for another effort. Laying his hand on his father's arm, he said in a low voice :

"Father, you have taught me to look upon this, as of all times, the one in which we should be prepared to do acts of kindness one to another : let me do this, if you can't, and you will never regret it."

His father, moved a little, grasped his arm, and said in a choking voice : "Yes, Will ; go and do it," and then covered his face with his hands.

Mrs. Wade sprang from her seat, crossed over to where her husband sat, put her arm round his neck and kissed him on the forehead, and then left the room with Will. A basket of provisions was hastily packed, and the glad youth was about to set out with it on his arm, when Mr. Wade came to the door, and said : "Never mind taking that, Will ; bring them here ; that will be best, won't it, mother ?"

Both "mother" and Will acquiesced, and the latter started off with a bound, like a greyhound from his leash, the last thing that he heard as he vaulted the orchard wall being his father's words, "Don't be long, Will."

In much less than half-an-hour the youth was back again, and with him, leaning on his arm, came his sister Martha, pale and thin, but still comely as of old. Frank followed, with the babe in his arms. He, too, though haggard and careworn, was still a handsome, and withal an intelligent-looking man. Mr. Wade received them on the threshold, and showed that he could be as generous in his forgiveness as he had previously been hard in his animosity. After embracing and

kissing his daughter with much tenderness, he gave his hand to Hodder, and said, as he did so, "We'll let bygones be bygones if thou'rt willing, Frank."

Frank assented heartily enough, and was about to thank him; but the farmer interrupted him, saying, "Nay, nay, don't thank me, thank Will; it's his doing."

(To be continued.)

Poetry.

TRACES.

Each passing thought will leave a trace
Indelible upon the face,
And in the countenance will beam
As shadows o'er the waters gleam;
Although they swiftly glide away,
Some token stands of passing sway;
The waters cool'd by ev'ry shade,
And ev'ry thought some mark has made.
But where the mind is noble, pure,
The finest traces must endure.
Yea! in old age we chiefly see
True records of life's history:
The mind depicted, well-defined,
In wrinkles that itself has lined.

A L.

THE WHITE DOVE.

I sat in my chamber alone,
When the daylight was nearly gone,
In dreamy and sad agitation
On I wot not of high or of low,
With my casement half open, when lo!
A white dove, in great agitation,
Flew into my chamber, and came,
Like a pet bird that long had been tame,
And perched on my shoulder and cooed;
And I said to it, "Beautiful bird,
What hither to me hath allured
Thee away from thy mates in the wood?"
But it answered me not: then "O dove,"
I said, "all have something to love—
Which they live for and toil for—but me;
And I am but living in vain,
With nothing to reach or attain,
While the days ebb, like waves of the sea."

Then the dove, in a sweet, gentle tone :
 " If thou'lt love me, and love me alone,
 As the best and the fairest of earth,
 I will stay with thee ever, and bring
 Such joy to thy heart as no thing
 In this sad world can ever give birth.
 " Not for fame, nor for wealth, nor for power,
 Shalt thou turn thy heart from me an hour,
 But think of me, live for me aye ;
 And then will I, weak though I seem,
 Give thee blessings more bright than the dream
 In which youth's bright hours fly away.
 " But if those great frenzies that seize
 On the bosoms of mankind disease
 Thy heart for a moment, I fly
 Away to my kinsman afar,
 Beyond yonder furthestmost star
 Which just 'gins to gleam in the sky ;
 " For I am a spirit, no bird,
 And ope, as perhaps thou hast heard,
 To those who are noble and pure,
 The gates to a city eterne,
 Where all for which true hearts may yearn
 Exists, and for ever is sure."
 And the dove ever keeps in my sight,
 Near my window by day, and at night
 It perches aloft on my bed ;
 And if for a moment my bird
 Is lost from my vision, I'm stirr'd
 With sadness and infinite dread.

THOTH.

Book Notices.

The Man of the Woods, and other Poems. By WM. McDOWALL, author of "Mind in the Face," "Burns in Dumfriesshire," &c. (Edinburgh: Adam and Charles Black).—The author says in his preface that "a favourable reception was given to 'The Man of the Woods, and other Poems,' when it first appeared, a good deal more than thirty years ago," and that he was "led to prepare a new edition of the work, with additions," in consequence of the flattering comments and gentle rebukes "for keeping his poetical light . . . so much under a bushel," addressed to him by the Scottish press on the appearance of Mr. A. G. Murdoch's "Recent and Living Scottish Poets," in which specimens of his muse were given. We do not wonder either at the flattering comments or at the rebukes, for it is

rarely of late that anything in contemporary poetry has given us so much pure pleasure. What with our Brownings and Tennysons and Rossettis and Swinbournes, and the rest, reading poetry has come to be pretty much like following Æschylus in the original, or taking an exercitation in the pure mathematics; so that it affords an unqualified delight to meet with a book of poems that gives us beautiful thoughts and sentiments expressed in plain and simple verse. Mr. McDowall's book reminds us of the poetry that was in vogue in our childhood, which, whatever its faults, had the simplicity of thought and the directness of expression of the Bible. Who, when he is tired of the intellectual gymnastics of the poetry of the day, does not revert with relief, as to a beloved meadow or country lane, to the poetry of Gray and Collins and Goldsmith and Cowper and Wordsworth? We should take these to have been Mr. McDowall's exemplars, more even than Burns, to whom he has devoted so much attention. There is in him the same quiet love of rural nature, combined with the same love of man. One cannot read his "Man of the Woods" without being carried, in fancy, to the breezy moorlands and whispering forests,

"Where, from the toiling world away,
I spent my childhood's choicest hours,
Or hunting bees, or gathering flowers,
Or listening to the linnet's strain,
Or that sweet voice, which ne'er again
Shall linger on my spirit's ear,
To woo a smile or win a tear,
And bid my plastic bosom thrill,
Submissive to its varied will."

The "Man of the Woods" is a collection of poems in various moods and veins on trees. The other poems of the book are "The Martyr of Erromanga," and a collection of occasional pieces, ballads, &c., under the heading of "An Ingleside Entertainment."

Forty Years in Phrenology. By NELSON SIZER. (Fowler & Wells, New York.)—Mr. Sizer says in his preface: "The author spent ten years in the lecturing field as a practical phrenologist, from 1839 to 1849, and in the latter year was called to become the resident examiner in the office of Fowler & Wells, which position he still occupies. During these forty-three years he has come into special professional relations with more than 200,000 persons, embracing every type of talent, character, and disposition, and specimens of every nation on the globe. He has been invited to visit schools and colleges, asylums for the insane, poor-houses and prisons; rare and peculiar persons—those endowed with genius in special directions; the eccentric; those idiotic in whole or in part; in fact, every odd and singular character has been hunted up and brought to test phrenology or its exponent, and in many instances to gain hints for the management of these peculiar cases." The book is pre-eminently one of anecdote, some instructive, many amusing.

The author says he examined the famous John Brown without knowing him, and declared him to have firmness and energy enough to swim up the Niagara river holding the tow-line of a 74-gun ship in his teeth.

John Ruskin: Aspects of his Thoughts and Teachings. By E. J. BAILLIE. (J. Pearce, Gough Square, Fleet Street.)—The author says in his preface that this little work is "intended to serve as an introduction to the study of Mr. Ruskin's works. I have tried to show on the surface what beauties may be found in the depths." We can recommend the work as eminently interesting and readable. It epitomises, in brief chapters, Mr. Ruskin's views on style, education, art, science, commerce, ethics, religion, &c., and gives some of his best and most characteristic thoughts.

Traits of Representative Men. By GEORGE W. BUNGAY. (Fowler & Wells, New York.)—Mr. Bungay's book deals in a popular way with some leading Americans, as, for instance, James Russell Lowell, Wendell Phillips, Henry W. Longfellow, Ralph Waldo Emerson, Edwin Booth, &c. He makes a very readable book, and tells a great deal about the lives and talents of influential men in the States about whom we at this side of the Atlantic hear much, but know little of personal character.

How to Keep a Store. By S. H. TERRY. (Fowler & Co., New York.)—In this work the author gives the result of thirty years' experience in business. To those who have not had previous experience in the retail business, and yet desire to open a shop, the book is invaluable, and even those who are in business can hardly read it without profit. The whole art of buying and selling is treated most comprehensively.

Facts and Gossip.

THE London correspondent of a provincial contemporary thus writes of Louise Michel, the notorious French revolutionist, who recently visited London for propagandist purposes: "In person, Louise Michel is tall and thin, her face is pale and oval. She has a full, broad forehead, but it retreats very much in the upper part, and a disciple of Gall would say she was strikingly deficient in the reflective faculties, benevolence and veneration. She has a pleasing voice, and speaks in a persuasive manner. She grants that woman has not a man's strength of mind and range of power. This, she says, arises from her treatment for a million years; and yet she confesses that she wants to make her the equal of man by rapid social revolution."

A PARIS correspondent of the *Pall Mall Gazette* writes :—"I have heard a conversation between three eminent members of the Anthropological Society on the brain of Gambetta. Who could have supposed that in size, weight, and general structure that organ was more feminine than masculine? The convolutions were delicately and sharply modelled, and there was not much space wasted in cellular tissue. It was in a most healthy state when Gambetta died, although his intellect betrayed signs of fatigue. Dr. Broca holds to the opinion that the decline in intellectual power was due to the asthmatic affection from which Gambetta latterly suffered and the attendant congestions. The third convolution, in which the faculty of language is supposed to reside, is of an abnormal development. Were Dr. Broca to have been shown the cerebral organ of Gambetta without having been told from what head it was taken, he should have said that it belonged to a woman who had well exercised all her mental faculties."

M. DUVAL, the eminent physician who took possession of M. Gambetta's brain after the *post-mortem* examination, has weighed it carefully, and states that its weight is exactly one thousand one hundred and sixty grammes. It is therefore inferior, in that respect, to the brain of Napoleon I., which weighed one thousand two hundred and forty-five grammes. Lord Byron's weighed one thousand four hundred grammes, and Cromwell's one thousand three hundred grammes. The convolutions of M. Gambetta's brain are being studied with deep interest by the faculty. M. Gambetta's total weight was one hundred and twelve kilogrammes.

THE want of an English translation of Gall's "Physiology of the Brain" has long been a source of deep regret to phrenologists. Had this been accomplished at the period of its publication in France, we can hardly doubt that it would long since have been generally recognized among us as the true and only physiology of the brain ; so clear and philosophical, so beautiful, so eloquent, so forcible are all Gall's descriptions and reasonings, and so numerous the proofs he adduces of the several organs. It is an astounding fact, but nevertheless true, that Gall's works have never been placed in a correct and adequate form before the English public ; and, moreover, no English or American edition of his works has been accompanied by the numerous and beautiful plates, without which his text loses half its value. The late E. S. Symes, M.D., prepared a careful translation, which it was proposed to publish, with the plates, in two volumes, and issue to subscribers at the price of two guineas a copy ; but, for some reason, although a large number of subscribers was obtained, the work was never sent to press. It is now proposed to publish it ; but as it would require a large amount of money to do so, it could only be done by subscription.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

D. F. (Kettering) has a strongly marked physiology, with a predominance of the motive and mental temperaments, favouring continuous and hard labour. He cannot be an idle-minded man ; is more liable to work too hard than not hard enough. He has a very strong will, which, conjointly with his muscular system, allows him to strain himself rather than not accomplish his ends. Is characterized for thought, originality, and power to comprehend and take the sense of a subject ; is more philosophical than scientific, and, if scientific, is better acquainted with fundamental principles than with details ; verbal memory, and memory of stories and events, not very good ; is methodical in his style of doing work, and well qualified to plan and lay out work ; is original and sometimes very apt in his wit ; characterized for prudence, caution, forethought, circumspection, and consistency ; not cruel, quarrelsome, or revengeful ; has good constructive, contriving, and even inventive power, and is seldom at a loss for a way to accomplish his ends. The more difficult the task the more he likes it. He has an eye to beauty and perfection, and has an expansive way of looking at things. Is youthful, and can entertain company agreeably when in the humour, although he may sometimes appear less sociable than he really is, for he is not inclined to adapt himself to the vanities, fashions, and foibles of society, or to pet and caress. He is, indeed, somewhat eccentric, his sources of enjoyment are peculiar to himself, and he is likely to have hobbies ; is an enthusiast in some things, but an enthusiast in his own way ; lives in an intellectual atmosphere of his own, and is liable to dwell much upon abstract and transcendental subjects.

F. S. (Kettering).—The physiology of this gentleman indicates a predominance of the vital temperament, and next to that of the mental. He is warm, ardent, emotional, rather excitable, and impulsive ; characterized for acquiring knowledge easily, and for being able to communicate it to others ; remarkable for his power of observation and for his knowledge of the external world ; has a good general memory of what takes place around him, has many things to talk about, never loses sight of his experience, and can describe places, actions, and experiments quite accurately. He is a free, easy talker when among his friends ; has a scientific, practical, business turn of mind ; may make improvements on inventions, but has not much talent to invent, or to deal in complicated subjects ;

is intuitive in his perceptions of character and of truth, comes rapidly to his conclusions, and answers questions promptly; delights to study character; and is apt in his powers of analysis and criticism. His sympathies are easily awakened, and he soon shows an interest in what is going on around him; enjoys life; works when he must and enjoys when he can; is sociable, companionable, friendly, and a ladies' man. He could make a good speaker, especially on literary and scientific topics; is greatly interested in the general welfare of society, and shows a reformatory, progressive disposition, for Benevolence appears to be decidedly large; hence he does not live alone or enjoy himself by himself. He will be more liberal than rigid in his theological views.

M. N. L. (Hull).—You have an organization worth cultivating, and, if you will do the best you can with yourself, you can excel as a teacher, as an artist, or in any occupation requiring taste, constructiveness, imitation, order, and power to understand principles. You have good powers for scholarship, for music, and for the languages; with practice you could also write nicely. You must, however, encourage application, perseverance, self-reliance, and self-government. Study yourself as much as possible; in order to do this you should read up in phrenology, and make yourself acquainted with your own organization. Encourage definiteness of observation and try to turn all your knowledge to the best practical account. Your temperament is one that, so long as you remain in unimpaired health, will create summer weather about you all the year round.

E. A. P. (Birmingham).—Your organization is a very fair one for health and long life. There is also a good balance between the body and the brain, so that you will be able to use your powers to a good advantage. The form of your head indicates a well balanced brain. Hence you will show no special deficiency in your character. You will be impulsive and somewhat quick tempered, but are not malicious. You have considerable strength of character, and will develop some unusual qualities. Are very firm, persevering, decided, prompt, fearless, and quite energetic; will dare do what many young ladies would faint at the thought of; have presence of mind in times of difficulty and danger, and great courage; possess much spontaneousness of character, and will need to use all your restraining powers to guide and control your impulses. Are naturally frank, open-hearted, and generous in your feelings; also conscientious, and desirous of doing your duty, but may not at all times be as cautious and circumspect as might be. Your social feelings are strong, and your affections warm and enduring. You are adapted for a public position; it does not matter so much what it is, so long as it brings you in contact with society, and enables you to do good and exert an influence; would show to a good advantage on the platform. You have great abilities, and should try to make the most of them.

A number of Replies to Correspondents have unavoidably been crowded out this month

THE

Phrenological Magazine.

MARCH, 1883.

CHARLES WENTWORTH DILKE, BART., M.P.

SIR CHARLES DILKE, who has just been elevated to the Presidency of the Board of Trade, shows an extraordinarily good development of body and brain for a statesman of all-round capabilities. Few men are more favourably developed for an active life. He has deep lungs and great breathing power, and soon recruits when exhausted if he can get fresh air. He is well qualified to resist foreign or outside influences and diseases peculiar to changes of climate, diet, and exercise. He is well fortified on all sides ; he has a high order of muscular power, which gives him great strength and power of endurance ; hence his movements are such as indicate that when he takes hold of a task it will be finished.

The brain and mind, however, are the predominating powers of his organization. The brain is rather large when compared with the body, and it is well developed in every part, yet some parts of the brain are more fully developed than others. His head is particularly long and high. He has the occipital, or social brain, strongly represented, which makes him a family man, and decidedly social and permanent in all his domestic attachments ; as well as very distinct in his love of home and country. The middle lobe of the brain is full in development, giving great tenacity of life, energy, and force of mind. He is generally industrious and economical without parsimony ; is not so impulsive or excitable as not to know what he says and does ; for, judging from the height of his head above the ears, self-government and presence of mind in times of danger and excitement are prominent powers of his mind:

The intellectual lobe of the brain is unusually large, giving great grasp of intellect and much versatility of talent. He has great power of observation, and more than common

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H

ability to acquire scientific information and exact knowledge of things, their qualities and uses. His head favours the ability to easily acquire statistical knowledge. He will not forget his experience, nor the places he visits. He is methodical in all he does, and finishes what he begins; and as a speaker he will have more to say than language in which to say it: his words are burdened with ideas rather than his ideas with words. In speaking he will be manly and dignified in his style, and will convince and command respect.

There is no special development among the intellectual organs; but all the powers are so fully developed as to exert a powerful influence; hence there are no qualities that stand out the more prominently because others are *nil* as regards power. His powers of intuition are great; he gets at truth almost spontaneously, and his mind is far-reaching and well-nigh prophetic; hence he is a great student of nature.

But those powers of mind which have the most controlling influence, and give stability to his character, and power to command respect, arise from his very largely developed moral brain. His head is particularly high and well rounded out on the top. The effect of this development upon his character is to give an elevated tone and manliness to his life and actions, making him conscious of his influence and responsibilities. All the moral organs are fully developed, while some are decidedly large, such as Benevolence, Veneration, and Conscientiousness, and have a modifying, if not a controlling, influence. Men with such heads usually become public men, and easily find plenty of disinterested work to do. He must be in full sympathy with all movements and measures calculated to benefit mankind at large. While he is quite proud and manly, he is respectful and modest, as though he were conscious of a superior power and responsible for his influence. His great firmness, joined to the moral brain, will give stability to his character and consistency to his conduct.

The side view of the head indicates four distinctly prominent traits of character. First: energy, industry, and application; second: manliness, self-respect, and ambition; third: comprehensiveness of mind, power to acquire knowledge from observation, correct judgment of things, persons, and circumstances, and a keen philosophical turn of mind; fourth: a high tone of moral principle, humanitarian sympathies, an elevated standard of action, and a kind of gentleness and modesty that comes from the consciousness of higher laws and obligations than those of ordinary society.

The great fault in men of such an organization is that they

see so much that needs to be done that they are liable to take too much on themselves, and so overdo and cripple their energies before they get half way through life; or else they lose courage and give up because they cannot imbue lesser minds with their own reformatory spirit and energy.

There is a very great contrast between the form of Sir Charles Dilke's head and that of the late M. Léon Gambetta, whose head was very large in the entire base from front to rear, giving him a strong social nature and love of home and



country, very strong executive abilities amounting almost to vehemence, strong appetites and passions, very large perceptive powers, very great memory of all he saw or knew, very great verbal memory and power of speech, great versatility of talent, and a most vivid imagination, while his higher reasoning powers were not large; besides which he lacked elevation of brain to give strong moral convictions and their controlling influence.

L. N. F.

Sir Charles Wentworth Dilke is the eldest son of Sir

Charles Wentworth Dilke, first baronet, and grandson of Charles Wentworth Dilke, the celebrated critic whose literary judgment and administrative talent were the chief stock-in-trade both of the *Athenæum* and the *Daily News* in their younger days.

The future member for Chelsea was born in the borough which he now represents, in September, 1843; he is consequently in his fortieth year. At the second of two private schools which he attended in the metropolis he displayed mathematical talent, and in due course he matriculated at Trinity Hall, Cambridge, with the intention of pursuing with assiduity his favourite study, in which he obtained a Scholarship. He soon, however, changed his mind, and betook himself to law, as calculated to bear more directly on a parliamentary career, for which he very early determined to qualify himself. He worked hard, and was easily senior in the Law Tripos for 1865. In 1866 he was called to the Bar by the Honourable Society of the Middle Temple. Shortly afterwards he started on a "round the world" journey of two years duration. The trip bore excellent fruit in the well-known work entitled "Greater Britain," which in the first year of its publication ran through four editions. In 1868 he was returned to Parliament for Chelsea by a majority of nearly two to one, and again in 1874 he headed the poll, notwithstanding an opposition of unexampled violence. Sprung from a race of journalists and *littérateurs* his pen is never long idle. Since the publication of "Greater Britain" he has found time to publish the "Fall of Prince Florestan of Monaco," and to edit, under the title "Papers of a Critic," his grandfather's chief contributions to the pages of the *Athenæum*, which paper he also occasionally supervises in person.

Since his former travels, he has been "round the world" a second time, his chief object being to acquaint himself with the state and prospects of Japan. He has visited every English-speaking corner of the globe, is thoroughly conversant with the condition of our Indian Empire, and is better acquainted with the language, literature, people, and government of Russia than any man in the House. He is perhaps the first thoroughly competent Englishman who has ever seen and described the men, manners, and institutions of the United States as they really are, and not as they are wont to appear to the jaundiced eye of national jealousy and aristocratic aversion. The American Republic is substantially Sir Charles's "Greater Britain," to which he foresees the hegemony of the English-speaking race is ultimately destined to fall.

He believes in the possibility of one omnipotent all-embracing federation of English-speaking men, of which the United States shall at once supply both the nucleus and the model. He is an untiring toiler, and from the first he has worked on the most profitable lines. Whether as law-student, traveller, author, journalist, or politician, whatever he has done he has done faithfully and well.

He is personally a total abstainer, though opposed to the Permissive Bill, and is in all things a pattern of method and regularity of habits. At Cambridge he was a finished oarsman. He is likewise a vigorous long-distance walker, a good marksman, and a deft fencer. In nothing has he shown such marked improvement as in his style of public speaking. Though twice president of the Union Debating Society at Cambridge, he was at first a most unimpressive speaker. But now it is not so. He is fluent, easy, and agreeable; one of the best level business speakers in Parliament. As for the matter, *that* has at all times been such as to redeem the worst faults of manner. Like the soul of honour that he is, he has never stooped to personal invective. Under the severest provocation he has said nothing to wound the susceptibilities of the most sensitive. In this respect he has set an example to some of our foremost public men. To him opposition from men or things is of exactly the same character. It is something to be overcome by patience and pressure in the line of the least resistance.

In the domain of current domestic legislation Sir Charles has played no unimportant part. It is to him we owe the popular constitution of our School Boards, it having been Mr. Forster's original intention to entrust the duties of school management to committees of boards of guardians. His also was the clause which conferred the municipal franchise on female ratepayers. He procured for the working men of London a most desirable boon in the extension of the hours of polling, and in everything appertaining to the better representation of the people in Parliament he has taken a leading part. On the all-important question of the redistribution of political power in particular he is, it is not too much to say, the greatest authority in the House. Like John Bright, he loves the big constituencies, and would, as far as possible, make them all numerically equal. He is not ordinarily an amusing speaker, but one of his speeches on the unreformed corporations will rank among the wittiest delivered by any member since he entered the House. His collected speeches on electoral reform, the Civil List, free trade, free land, and free schools are a ready repertory of trustworthy facts, which

ought to be in the hands of every reformer. In every department he is a friend of economy. In Parliament he is ever vigilant and never fussy. When he speaks it is always to contribute some new fact or unused argument to the debate, and he never fails to catch the ear of the House, which admires his straightforwardness, manly bearing, and unremitting attention to his parliamentary duties. Of his connection with the present Government, and his recent elevation to the Cabinet, nothing need be said, as the facts are still fresh in everybody's mind.*

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.†

CHAPTER I.

OF THE ANATOMY OF THE BRAIN.

The following is a brief summary of Gall's Observations on the Anatomy of the Brain.

The nerves of the body do not consist of any medullary substance, they are only fibres. These fibres spring from each half of the spinal marrow in various fascicles, which arise, by the side of each other, from the *cauda equina* to the *medulla oblongata*. These fascicles are separated by furrows and a pulp resembling the *substantia corticalis*. Each of these fascicles consists of fine fibres, which are not separated by any intermediate body. In large full grown animals these fascicles may be easily separated.

Besides these nerves, which, issuing from the spinal marrow may be called the *diverging* nerves (*hinaustretende*), there is another sort of nerves, which bear to those the relation of veins to arteries, and are formed where those terminate; as, for instance, the nerves which form the brain (*cerebrum*) in the cortical substance; these are the *converging* nerves (*zurücktretende*). But these converging nerves do not actually reach the spinal marrow, but entering, on their way, into the two hemispheres of the brain and the parts hitherto considered as belonging to the brain, they meet together in four *commissures* or sutures.

* These biographical details are taken chiefly from the *Weekly Dispatch*.

† This, and the chapters that will follow, were written by one who learned what he knew of Gall's theories from his own lips. They were originally published in 1807, and as there is much ignorance as to what Gall's theories really were, it is thought desirable to reprint this account of them.—ED. P.M.

These nerves, thus eccentrically and concentrically formed, may be thus distinguished :—

1. The characteristics of the diverging nerves are—

(a) That they are harder to the touch, and may thus be recognised by a greater cohesion than the converging nerves.

(b) That they become stronger in their direction outwards, that is, from the spinal marrow to the surface of the brain.

(c) That they, to that end, pass through ganglia which the others do not.

The diverging nerves form, in their eccentric progress, the most important and largest congeries of nerves, which have an hundred thousand fold greater volume than those nerves themselves. This could not be done did they not, on their way, receive a considerable increase. This takes place also in certain points of the cerebrum and cerebellum, as in the *corpus olivare*, &c. And these Gall calls knots of nerves or ganglia (extending, as the reader will remark, the import of this term).

These ganglia, when an incision is made in them, have a serrated appearance, with a colour mixed of yellow, grey, and red; and when touched, seem to have a firmer texture than the mass of the other nervous fibres, which proceed out of these ganglia, strikingly increased in strength. That these ganglia serve to strengthen the diverging nerves may, on inspection, be seen, and is further evident from this circumstance, that those nerves which are to be further spread as, viz., the olfactory nerve in the whole of the pituital membrane, form more ganglia than other nerves which are less widely spread. The *cinereus bulb* of the olfactory nerve is nothing but the last ganglion which this nerve forms previous to its being spread over the pituital membrane.

Further, this law of the increase of mass by means of a knotty swelling or tumour is confirmed by the structure of plants.

To return to the fascicles out of which the diverging nerves arise in the spinal marrow, and of which eight pairs are already known: each of these fascicles has its certain function, and forms its own nerves and congeries of nerves, with which it therefore bears a fixed proportion, as, for instance, that pair of fascicles, i.e., the *corpora pyramidalia*, which form the hemispheres of the cerebrum, bears always a proportion to the cerebrum. Where the hemispheres are large, the pyramids are large; and *vice versâ*.

The order in which the most important of these eight ner-

vous fascicles diverge and form the parts that belong to them is as follows:—

First, the *nervus oculomotorius*, and the nervous fibres which form the *nervus accessorius*, proceed on each side, from the pair of fascicles which lie most on the outside of the *medulla spinalis*, and in particular of the *medulla oblongata*. The *corpus olivare* is on each side the common ganglion for these nerves, which they, being diverging nerves, require. When cut, the *corpus olivare* has the colour of a ganglion. The *nervus oculomotorius* can be traced into it.

More towards the middle of the *medulla oblongata*, is found that pair of fascicles which forms the cerebellum, and has hitherto been known by the name of the *corpora restiformia*; seu, *processus cerebelli ad medullam oblongatam*. Among mammalia, this pair of fascicles, as well as the cerebellum which is connected with it, is found largest in man. And among other animals it diminishes in proportion as the cerebellum and the sexual impulse connected with it diminishes; so that oviparous animals retain nothing but the *processus vermiformis*. That part of the cerebellum which lies on each side of the *processus vermiformis* is not formed by the *corpora restiformia* but by the *striae* of nerves which issue from the middle of the fourth ventricle, and appear on the *medulla oblongata*. That these nervous *striae* are not the origin of the auditory nerves, as Sömmering asserts, is proved by this, that they are not to be found in oxen, dogs, pigs, &c., who yet hear and have strong auditory nerves.

In this pair of fascicles also, which forms the cerebellum, the characteristic of the diverging nerves is also to be found, viz., that they pass through a ganglion. The ganglion of the cerebellum is the *corpus ciliare* which lies in the *arbor vitæ*. This is seen by tracing the *corpora restiformia* as they enter the lower surface of the cerebellum (the brain being reversed), or, making a cut in the cerebellum, directly from behind towards the front, on the upper surface of the cerebellum about the third of an inch from the border where the hemispheres meet.

After the nerves which form the cerebellum have passed through this ganglion, they spread themselves eccentrically over the *substantia cinerea s. corticalis*, which surround alike the cerebrum and cerebellum. They form with this a nervous membrane, which in the cerebellum is plaited in parallel folds, but which may be unfolded as well as the convolutions of the membrane which form the hemispheres.

Next this pair of fascicles follow those of the auditory, olfactory, and optic nerves. As diverging nerves, they all

pass through ganglia : the back pair of the four eminences are the first ganglion of the olfactory nerve, as the front pair forms the ganglion of the optic nerve. These two nerves can be traced into their ganglia.

The most important of these eight pairs of fascicles is the middle one, which has hitherto been called the pyramids. This pair is the origin of the whole cerebrum or the two hemispheres. This is proved,—

1. By the size of the pyramids being, in the various kinds of animals, always in proportion to the size of the hemispheres.

2. By the pyramids pursuing an uninterrupted course to the surface of the hemispheres. This takes place in the following way :

These fascicles first cross each other about an inch below the *pons Varolii*, so that each fascicle passes over to the opposite side ; and thus in the sequel the left pyramid forms the right hemisphere, &c. For, after crossing each other, the fascicles separate below the *pons Varolii*, and do not cross again ; and thus that which was originally the right fascicle continues on the left side.

From this crossing, which may be distinctly perceived if the medulla oblongata be properly cleansed from the *pia mater*, and the pyramids separated about the middle, the diseased phenomena may be accounted for, which appear on the right side of the body after an injury has been done to the left hemisphere ; and on the contrary.

These broad fascicles or pyramids are, as diverging nerves, subject to the necessity of passing through ganglia ; and they in fact pass through two of them.

The first of these is the *pons Varolii seu protuberantia annularis Willisii*. This is, in part, a commissure of the diverging nerves of the cerebellum (which may be here anticipated) and in part a ganglion of the fascicles forming the hemispheres.

Even on the outside of the *pons Varolii*, but still better if (the brain being reversed) a slight superficial incision be made in it in the direction of the pyramids, towards the *crura cerebri*, and the edges of this incision be carefully drawn from each other, the diverging nerves of both hemispheres of the cerebellum may be seen running across and meeting in the *pons* (or bridge) as their commissure. If these transverse striæ be pursued with the handle of a scalpel, or with a concave scalpel, somewhat deeper in the substance of the bridge, there will be met, about one or two lines below the surface, a layer of nervous fibres, running in a

line from the pyramids to the *crura cerebri*. Betwixt these nervous fibres running along through the bridge and those transverse striæ, is to be seen the cortical or cineritious substance which covers the extreme surface of the nervous membrane, and forms, as it were, its last ganglion, as the organ of nourishment to the oblong fibres, which issue out of the bridge in a strikingly greater mass than they enter into it from the pyramids. If this layer of nervous fibres which runs from the pyramids along the pons Varolii be removed, a layer of transverse striæ is met with, which striæ, returning from the two halves of the cerebellum, meet together in the bridge as their commissure. This layer of transverse striæ is succeeded again by an oblong layer of nervous fibres issuing from the pyramids.

Gall discovered eleven layers of these nervous fibres, proceeding from the pyramids through the pons Varolii.

After the nervous fibres of the pyramids have in this way passed through the pons Varolii as their first ganglion, and issued out of it much increased, they form the *crura cerebri*, which, as observation teaches, are nothing but a continuation of the pyramids, or that pair of nervous fascicles which forms the hemispheres of the cerebrum.

The nervous fibres which form the *crura cerebri*, before they pass into the membrane, the folds of which constitute the hemispheres, pass through a second ganglion, that is, the ganglion of the cerebrum, a part of the brain, the real form of which has been hitherto unknown, and still less its internal quality, but which is discovered at once when the middle lobe of the brain by the *Fossa Sylvii* is cut away. The whole congeries of the brain, and also the optic nerve around this, may be taken away. This optic nerve winds on each side of the front pair of the four eminences which are its first ganglion from behind, round that grey mass which forms the ganglion of the cerebrum, towards the front, in order to form the *decussatio nervorum opticomum*. Seen from above, or from the great ventricles or cavities of the brain, it is the *thalami nervorum opticomum* (which are nothing but a web of all the nervous fibres in the ganglion of the cerebrum, or are properly the ganglion itself) and the *corpora striata* (which are properly the nervous fibres already diverging from this ganglion) which constitute the ganglion of the cerebrum.

That is, this ganglion consists of two pulpy masses crossed in the middle by the nervous fibres which spring from the pyramids, and have been strengthened by passing through the pons Varolii. If the brain be reversed, and the upper pulpy mass be carefully taken away, the nervous fibres can

be traced from the crura cerebri entirely through the ganglion of the cerebrum. Each of the nervous fibres which are then seen forms a particular involution of the brain, and is to be considered as the organ of some intellectual function. After these nervous fibres have passed through the ganglion of the cerebrum enlarged, they diverge on all sides through the distinct involutions of the cerebrum, and forming a nervous membrane over the pulpy cortical substance which surrounds the whole brain on which they are spread, terminate in this pulpy matter, which constitutes, as it were, their last ganglion.

In the same manner as the diverging nervous fibre of the cerebrum and cerebellum terminate, terminate also the diverging fibres of the other nerves which spring from the spinal marrow, in a pulpy substance, which is, as it were, their last ganglion, and in different places of different qualities. In the labyrinth, the pulpy mass, in which the progressive fibres of the auditory nerve terminate, appears like a transparent gelatinous body; in the nose, the pulpy mass in which the diverging fibres of the olfactory nerve terminate, appears like a serous skin, the pituitary membrane, &c. In some places this substance is woven into a hardish web of nerve, as, for instance, in the ganglion of the cerebrum (the *corpus ciliare*) and in the ganglion of the *nervi accessorii et oculo-motorii* (the corpus olivare). In other places it lies like a grey pulpy substance, as, for instance, in the ganglion of the cerebrum and on the surface of the cerebrum and cerebellum.

Out of this pulpy mass in which, as before stated, the diverging nerves of the cerebrum, cerebellum, &c., terminate, the other kind of nerves arise; whether it be that the diverging nerves turn back again and converge, or altogether independently of them; that is, a second species of nerves is found, viz. :—

2. The converging nerves and congeries of nerves, which may be thus characterized :

(a) That they are softer than the diverging nerves.

(b) That they take their origin in that pulpy mass in which the diverging nerves terminate.

(c) That they unite and strengthen themselves in an inward direction, that is, from the surface of the brain, &c., to the spinal marrow; but they do not, like the diverging nerves, go through ganglia, but rather avoid the ganglia of the diverging nerves.

(d) That they meet together from the homogeneous congeries of nerve on both sides, and form commissures.

The commissures which Gall was able to exhibit anatomically are :

(1) The commissure of the converging fibres of the auditory nerve.

It lies immediately behind and before the pons Varolii, and in men it is covered by it, but in other animals, as they have a smaller cerebellum, and consequently a smaller pons Varolii as its commissure, it is perfectly free and distinct.

(2) The commissure of the converging fibres of the olfactory nerve.

(3) The commissure of the converging nerves of the cerebellum.

This, as already observed, is formed in the pons Varolii. When the brain is reversed, the converging nerves of both hemispheres of the cerebellum are to be seen very distinctly running across and meeting on the pons Varolii. These, and the diverging nerves which run along from the pyramids, and are destined for the hemispheres, succeed each other in distinct layers, as already stated.

(4) The commissures of the converging nerves of the cerebrum.

(a) The largest and most important of these is the *corpus callosum*. In this are united, not merely most of the converging nerves of the whole hemispheres, but also the remaining particular commissures of the converging nerves of the cerebrum.

(b) The *commissura anterior*, or the union of the converging nerves of the front and middle lobe of the brain above the optic nerve. The *Septum pellucidum* is a part or continuation of this commissure.

In animals whose middle lobes are smaller, the *commissura anterior* is weaker, and in these the olfactory nerve furnishes the same with converging nerves.

(c) In like manner, the converging nerves of the back lobes of the cerebrum form together a *commissura posterior*.

(d) Besides these commissures, the converging nerves of the cerebrum form both before and behind some other particular commissures on the *corpus callosum*, for constituting a sort of covering round it.

Besides the above-mentioned nerves and congeries of nerve, there also proceeds a tender nervous mass from between the two halves of the spinal marrow, upwards through all the double organs which are formed by the nervous fascicles of the spinal marrow. This nervous mass is, as it were, the instrument of connection between the double organs, and appears on the great commissure the *corpus callosum*, as the *Raphe Lancisii*.

It may be proper to observe that Gall was first led to that

contemplation and study of the brain which ended in the doctrine above stated, by observing the phenomena of the *Hydrocephali interni*, in whom the whole brain is often stretched out into a membrane scarcely a line thick; hence he inferred that the brain cannot be, as is commonly fancied, a pulpy substance, but must be a membrane. About the same time certain pathological appearances, for instance, that the extremities are lamed by the hemispheres of the brain being wounded, evinced to him that an uninterrupted connection must take place between those hemispheres and the spinal marrow. He accordingly directed his attention to an anatomical exhibition of that membranaceous quality of the brain which he suspected from physiological reasons; and he was enabled, in opposition to all the anatomists of antiquity, and before all modern anatomists, to make this anatomical discovery, by pursuing a mode of anatomical research contrary to the practice hitherto generally observed; that is, he traced the connection of the nerves and brain, not from the summit downwards, but from the spinal marrow upwards. In doing this, he followed the course which nature itself takes; as in the higher and more elaborate organization of animals, the commencement is, as it were, in the spinal marrow, and the brain is gradually and more subtly formed, according to the kind and rank of the animal in the order of creation. In the simplest animals, viz., the polypus, we see only scattered nerves; in the next order of animals, we meet with a kind of stem, from which diverging nerves issue in more highly organized beings. In animals still further advanced, the nerves springing out of both halves of the spinal marrow (for the spinal marrow, as well as the brain and all organs of animal life, is double) form partly the brain, partly nerves; all of which in fact spring from the spinal marrow, though they seem to have their origin in the brain, as has been already stated.

STRIVE earnestly after "the contented mind." Put a limit to your desires, whether they be large or small. There are such differences in what give content to different persons, one cannot define what will satisfy any one; but as to the wisdom of limiting our desires within the range of possibilities, and striving after peace of mind, freedom from unnecessary cares and anxieties, and valuing at its true worth mere worldly success, there cannot be two opinions. We should base our happiness more on prudent determination and moderate desires, a sound and well-regulated mind, and a disposition not apt to be angered either by men or by the accidents of life, but which on the contrary, accepts them with a good will, takes just views of all things, and turns them to good account.—*Platt*.

ON THE STUDY OF WORDS.*

BY THE EDITOR.

Words have been likened to coins: they have been denominated the currency of the realm of mind. Without them thought, even if possible, is powerless. Man without words or speech would be in the condition of the anthropoid apes, a mere brute beast, with passions, propensities, and some intelligence, but without ideas, without morals, and without the possibility of culture or civilization. In other words, speech makes man. This is true in a secondary, as well as in a primary sense. A German professor used to say that language is an exact counterpart of the people who use it; that if it was a hard language, the people were hard; if soft, the people were soft and effeminate; if stately, the people were of a proud and dignified disposition; if light, facile, and quick moving, the people partook of the same characteristics. The same thought has often been expressed in a somewhat similar way.

A language must necessarily resemble the people who speak it, and who in the course of their growth and development have fixed and fashioned it, until it has become a sort of outer garment clothing their inner life. For after all language is a plastic element; and in the hands of a living people can be elevated or degraded, according as they are noble or debased. It grows in exact ratio with them, takes on their character, and assumes their every lineament.

Life in language, as elsewhere, appears to involve growth and change as an essential element; and the remarkable analogies which exist between the birth and growth, and the decay and extinction of a language, and those of an organized being, or of a species, have been often enough noticed and dwelt upon. Some have even inferred from them that language is an organism, and leads an organic life, governed by laws with which man cannot interfere. Without, however, going so far as that, I am of opinion that language may be a measure of the life in a nation—that it is in fact a reflection of that life; and that according as a people is highly civilized or barbarous, on the upward or downward course, its state and condition will be reflected, photographed, so to speak, in its language. A savage people cannot have the language of a semi-civilized people; and a semi-civilized nation cannot have the language of a highly-civilized one. The language

* Being the substance of a lecture delivered before the Victoria Road Literary and Philosophical Society, Northampton, January 1877.

must grow with the people ; it develops in strength, in force, in wealth, in beauty, in expressiveness, in proportion as there is a need felt for its growth and development ; and not otherwise. But while a people's capacities and acquirements make its language, we must not fail to notice also the contrary truth—that its language helps to determine its intellectual character and progress. The powerful reflex influence of language on mental action is a universally-admitted fact in linguistics ; to allow it is only to allow that rooted habits, learned by each generation from its predecessor, have a controlling influence on action. So that as long as a people is advancing in civilization and culture, it will be constantly augmenting and enriching—for the most part, no doubt, unconsciously—the expressional capacities of its language, either by developing its native resources, or by borrowing from other tongues ; thus making it capable of expressing ideas and conceptions which previously it was incapable of doing.

The scholars of the Middle Ages, who employed the Latin for the expression of their higher thoughts, did so partly because the popular dialects had not yet become enriched to an extent to aid the production of such thought and for expressing it. Were it possible, for instance, for us to be deprived of our English of to-day, and compelled to go back to the English of Chaucer, it would be found that we should be bereft of perhaps one half of our present intellectual life, and that in consequence, we should have made a large backward step in the path of civilization.

Such retrograde movements have been made. Nations, after having attained a high degree of culture, have gradually declined and become degenerate ; and with them their language has become degenerate. Many words, with them apt and full of meaning, have fallen out of use ; while others that had high and noble significations have become degraded to lower uses. As an instance, we may take the word *virtù*, which, with the Italians, from meaning those qualities and dispositions of mind and heart which we understand as virtue, came to mean mere objects of art. Those who are acquainted with Carlyle will recall the fine passage in which he alludes to this degeneracy :—

“The Italians, instead of the sacred service of Fact and Performance, did Music, Painting, and the like ; till even that has become impossible for them ; and no noble nation, sunk from virtue to *virtù*, ever offered such a spectacle before.”

Other examples might be cited as strong as this one.

Our own language has not been altogether free from this degeneracy. There have been periods in our history when

the wave of civilization has, as it were, stood still, or even retrograded, and a corresponding mark has been left on our language. There are, indeed, times in the life of a nation when the two currents are visible side by side, when with one section of the people language is being degraded, while with another it is being raised, or at least maintained in its integrity. This is the case when a nation is divided into two distinct parts, the one opposed to the other in aims and endeavours; when the one half is idle, frivolous, and without any earnest purpose, and the other laborious, serious, and religious, as was too frightfully the case in France during the latter half of the last century. We may see the same influence at work in our own country at the present time; and it may be noticed in certain ranks of society almost any day. For instance—just to give an example—often in London, even in educated society, we hear adjectives used in the most depraved manner: “awfully” and “dreadfully” used where *very* would have been strong; “adorable” where “estimable” would have been too emphatic; and so on. You can easily understand that in a society where such words are used in a petty or trifling sense, they gradually become useless to convey their original signification, and so other words have to be adopted to express what they formerly meant.

It must not, however, be overlooked that there is in all languages a natural tendency to change—apart from this degeneration with the degeneration of peoples. This change seems to be a law of their growth and expansion. But though language changes continually, it does by no means continually decay; or at all events, says Max Müller, what we are wont to call decay and corruption, in the history of language, is nothing but the necessary conditions of life. There are many causes which help to bring about these changes; to speak of which would lead me too far. I may, however, notice one, which has regard more particularly to change of form; for a word may change its form, to almost any extent, without change of meaning; or it may take on an entirely new meaning without change of form. As a matter of fact, the words are few which have not done both. As regards change of form, we have to recognize, as the grand tendency underlying all the innumerable and apparently heterogeneous facts which it embraces, the disposition, or at least the readiness to give up such parts of words as can be spared without detriment to the sense, and so work over what is left that it shall be more manageable by its users, and more agreeable to their habits and preferences. The science of language has not succeeded in bringing to light any more fundamental law

than this, even any other to put alongside it: it is the grand current setting through universal language, and moving all its materials in a given direction, although, like other such currents, it has its eddies, where a counter-movement on a small scale may seem to prevail.

Take as an example of this tendency the word *cnihtas*, shortened to "knights," or *ongunnon*—"begun." Another example is the word "oblige," originally pronounced *obleege*, but changed in accordance with this economizing process in speech. We may see the same tendency at work on foreign words which are in process of being Anglicized—*prestige*, for instance, which we as often hear pronounced "prestige," like "vestige," as given fully *presteedge*.

It is in accordance with this tendency that our English language, from being a highly-inflected one, has become perhaps one of the most simple in the world. Of all the languages of its kindred, the English is the one which most remarkably illustrates that mode of linguistic change consisting in the loss of formal grammatical distinction by synthetic means. There is no other tongue which, from having been so rich in them, has become so poor; none which has so nearly stripped its root-syllables of the apparatus of suffixes with which they were formerly clothed, and left them monosyllabic. All this has come about mainly through the instrumentality of the tendency to save and abbreviate—a tendency which, in this department of its working, especially, makes for decay; the conservative force, the strictness of traditional transmission, has not been sufficient to resist its inroads. Much of the loss has been the work of the last few centuries; and there is no difficulty in pointing out causes which have at least quickened it. The English is a German or Teutonic dialect. It is as nearly akin to the High German of the present day as are the Low German, the Flemish, or the Dutch. A large proportion of our commoner and more homely words are the same in all those several languages with but a slight difference of sound; as for instance—*vater*, *fader*, and *father*; *mutter*, *moder*, and *mother*; *strasse*, *straet*, and *street*; *haus* and *house*; *bach* and *beck* (brook); *kinder* and *childer* (children); and a vast number of others. The German—the High German particularly—has retained many more of its ancient characteristics than the English, and it is still a highly synthetic language. Its declensions and conjugations are exceedingly complicated, that is, in comparison with our very simple English. But when our Anglo-Saxon stock became largely intermixed with Norman it told upon our speech. It was necessary for the new element to make itself acquainted with

the language of the conquered people, and when men learn a strange language by a practical process, they are sure to make bad work with its word-endings. If they get the body of the word—its main, significant part—intelligibly correct, they will be content to leave the relations to be understood from the connection. This tendency, in the case of the Normans learning to speak Saxon, would be given additional force by the circumstance that they only had occasion to make use of it in order to make themselves understood by a subject, and therefore, to them, inferior people. The irruption into England, however, of the French-speaking Normans, and their fusion with the Saxon-speaking English, probably only gave an additional impetus to a tendency which was, perhaps, already sufficiently marked in the later Anglo-Saxon. For even in the earliest old English literature extant we find considerable departure in this respect from the German. There are those who say it has weakened our English tongue, but I do not think we need trouble on that score; a living, energetic, spiritually vital people will always put life and vigour into their speech, and make of it a sufficient garment for the clothing and beautifying of their thoughts and emotions. We may have lost something as regards clear and concise utterance; but if we have, we have also gained very materially in other respects. We have for one thing got one of the most democratic languages in the world; and that is something. I do not know another language: there certainly is not one in Europe which is so free from the peculiarities which indicate differences of rank and station.

Another way in which we have emancipated ourselves from a thralldom of speech is in regard to genders. To us the name or appellation of a person is masculine or feminine only, according as the person is male or female; while our Anglo-Saxon ancestors were as much under the dominion of that old, artificial grammatical distinction of all the objects of thought as masculine, feminine, or neuter, on a basis only in part coinciding with actual fact, as are the Germans now. The French has suffered the same loss, or gain, only partially, having saved the distinction of masculine from feminine, but confounded neuter and masculine together by the obliteration of their respective marks of difference. We have no exceptions to the rules that objects are masculine, feminine, or neuter according as they are male, female, or of no sex, save one or two poetical exceptions, as that of using the feminine, she or her, for a "ship," the "moon," &c.; and the general exception of regarding the inferior animals as without sex in ordinary discourse. The Saxon had several ways of forming

the plurals of nouns, the same as the Germans, but they have all given way before the addition of "s," except some irregular plurals which still hold their ground, and the retention of some foreign plurals.

With reference to verbs, too, there has for a long time existed a tendency to work over our strong verbs—such as bite, bit, bitten, abandoning the irregularly varying inflection, and reducing them to accordance with the more numerous class of "regularly" inflected, like "live" and "lived." This is a tendency which should not be encouraged, as by it we should lose some of our most forcible words, as dig, dug; cleave, clove, or clave; strike, struck; run, ran; sing, song, &c. We have already lost many—or are on the point of losing them—such as climb, clomb; swim, swam; fling, flung; ring, rung; swing, swung; blow, blew; crow, crew; heave, hove; help, holp; seethe, sod, &c. We have already suffered enough loss in our verbs without losing any of our strong verbs. We formerly had a suffix in *en* to form the plural, the same as in the German—as *ich sing, wir singen*: I sing, we sing. We also had an affix for the participle, like the German *ge*—as in *gesungen*, sung. We have a remnant of it in the form *y'cleped*, called, named, which is doubtless a softening of *ge-cleped*.

Persons with an insufficient knowledge of our English grammar often fall into a blunder in distinguishing the adverb from the adjective. For instance, in such phrases as "He hits hard," they will, in order to be strictly grammatical, as they think, say, "He hits hardly;" or, instead of "He dug deep," "He dug deeply," which is certainly bad English. Now the explanation is this: In the earlier stages of the language, the adverbial form was marked by a final *e*, as: adjective, *hard*; adverb, *harde*, but in course of time the *e* became silent, and then the adjectival and the adverbial forms became identical. We have another apparently abnormal form of adverb and adjective in words such as godly: as "a godly life," and "to live godly." In old English the distinction was plainly marked; the adjective was god-lic, or like; the adverb god-lice, with the final *e*. The lic, or like, has been corrupted into *ly* in both cases.

I might go on to any length giving illustrations of the change and evolution of language. I have, however, I think, said enough on this score to show how important is a knowledge of our early English, and, indeed, of all the sources of our modern English, in order to enable us to know and use our mother-tongue to the fullest extent of its capacity.

(To be continued.)

GEORGE COMBE.

PHRENOLOGY AND RELIGION—THE HENDERSON
BEQUEST—EDUCATION.

As years went on Combe was enabled to devote his attention more and more exclusively to the subject of phrenology. In 1830 he was released from the management of the brewery, in consequence of the Edinburgh Commissioners of Town Improvements requiring Livingstone-yards for the construction of the road which now connects the Castle Terrace and the High Street. The Commissioners paid £9,650 for the freehold, of which £1,650 fell to George's share, the rest being apportioned between his brothers and sisters, and Combe was not sorry to be rid of a charge which had been troublesome from the first. On the 25th of September, 1833, he was married to Miss Cecilia Siddons, a daughter of Mrs. Siddons the famous tragedian. Ever since his first visit to the theatre Combe had been a great admirer of the stage, and numbered among his friends some of the first stars of the theatrical world, including Mrs. Henry Siddons, daughter-in-law of Mrs. Siddons, and sister of Mr. Murray the lessee of the Edinburgh Theatre Royal, and Miss Fanny Kemble. It was at the house of the former that Combe, in 1831, first met Miss Siddons. She subsequently became a frequent visitor at his residence in Northumberland Street, and as he found that they were well adapted to each other in thought, feeling, and sentiment, and that he had outlived a scrofulous tendency (caused by the dampness of Livingstone-yards) which had, in early life, caused him to determine not to marry, he decided to relinquish his bachelorhood. The marriage proved a happy one, and throughout the succeeding years of his life Mrs. Combe was his faithful and admiring companion. She was a lady of more than ordinary acquirements. In addition to some skill in painting, she possessed considerable literary ability, and attempted several plays, besides writing part of a novel and several short sketches. Another literary performance was a conversational explanation of the principles of phrenology, intended for the use of children at home and in schools; but she did not complete it. This work she began some years after her marriage, when her knowledge of the subject had been largely extended by association with her husband.

There was, during the years 1831, 1832, a decided lull in the public interest in phrenology in the Scottish capital, partly, no doubt, owing to the fear his advanced theories had

awakened in the breast of some of his followers. Not only did he claim phrenology to be the only true science of mind, but "the true expositor of God's will and man's duty." The consequence was that, while many became timorous because on untrodden ground, others hailed the advance with delight, and declared "that now for the first time, they saw a clear course before them, and were enabled to understand the duties they had to perform here in order best to prepare themselves for the hereafter." These stood by their leader; those fell away. Writing to a friend on the 22nd November, 1831, Combe says:

"The Evangelical disciples have abandoned the Society, given up the *Journal*, and denounced me as a dangerous infidel, the consequence of which is that nobody now enters the Society, and nobody would attend my lectures. I do not mean to attempt a course this winter. But all this is local and temporary. Beyond Edinburgh the science flourishes, and I have no fear, if I live in health, of triumphing over this prejudice in the course of ten or fifteen years, as I have surmounted other prepossessions against me. In point of fact, I feel myself to be animated by a pure love of God and of truth, and to be pleading the cause of religion and of human nature against venerable error and mental bondage, and no external means can deprive me of serenity and enjoyment in pursuing the course before me."

It was the boldness with which he attacked the forms of Orthodoxy, together with a misapprehension of his meaning, that created alarm, and roused the prejudices of the fearful and narrow-minded. Otherwise the sound views of religion and morality enunciated in all Combe's writings could not have been objected to. But the trouble was his views were too large, as exemplified in the following extract, taken from an article "On Human Capability of Improvement," published in the twenty-ninth number of the *Journal*:—

"While we do not contend for the absolute perfection of physical creation, or the perfectibility of man by natural means, we are humbly of opinion that there are far more excellences and capabilities in both than have been hitherto discovered; and that the study, evolution, and proper practical application of the natural elements of the physical and moral worlds are indispensable preliminaries, and most important auxiliaries, to human improvement. It is one of the excellent characteristics of the Christian religion that it is adapted to every state of society—to men scattered in wildernesses or thronged in crowded cities; and hence religion is shorn of her power and utility as a practical system of

instruction by whatever tends to widen her separation from science, philosophy, and the affairs of this world. The human faculties having proceeded from the Creator, are found in harmony with the actual constitution of nature, and would kindle with zeal, and labour with delight in studying, unfolding, and applying it if so directed; whereas they are restrained, cramped, paralysed, and enfeebled by inculcating habitually maxims which cannot become practical, in consequence of the natural conditions on which they depend not being previously produced. This unfortunate habit of undervaluing the capabilities of the natural world, and neglecting the study of it, diverts the attention of the best minds among the people from the real road to improvement. In consequence of the constitution and moral relations of the natural world being to much neglected,—while, at the same time, the Creator has rendered a knowledge of them indispensable to moral cultivation—preaching is inefficacious in improving the temporal condition of mankind, to an extent unprecedented in most human institutions. This conclusion is forced on us when we compare the number, zeal, and talents of the teachers, the provisions made by law for their support, and the favourable dispositions of the people to profit by their instructions, with the actual benefits communicated by their preaching. When divines shall have become acquainted with the real constitution of the world, and the moral plan which pervades it, and shall have dedicated their talents to teaching these to the people, as preparatory for their other doctrines, they will find themselves and their instructions invested with a moral power and efficacy to which they have hitherto been strangers, and then, but not till then, will religion, science, philosophy, practical business, and recreation appear resting on one basis, animated by accordant spirits, coinciding in their objects, and contributing to one end—the improvement of man as a moral, intellectual, and religious being.”

These remarks were applied exclusively to the temporal effects of religion; its influence on the external interests of mankind he regarded as “too sacred a subject for discussion in a journal devoted solely to philosophical inquiries.” But they were too strong at that period, says Mr. Gibbon, even for some of those of his followers who had remained faithful to the cause after the publication of the “Constitution of Man.” One of them, Mr. P. Neill, who read the article in proof, warned the writer that such theories would prove fatal to phrenology. Combe, replying to him under date 18th July, 1831, said the observation of life had brought home to his mind a very strong conviction of the great evils under

which mankind suffer from ignorance of their own nature and its relations, and of the benefits which phrenology was destined to confer on them when its principles should be applied; he therefore felt it a moral duty to proclaim this conviction, and to urge it on society. He proceeds: "You will recollect that the Phrenological Society and *Journal* were both left for years under the guidance of the most orthodox phrenologists, and that there was no attempt made to apply the science to the rectification of any existing opinions or errors, or, in short, to render it more than a subject of mere scientific or literary curiosity. Now it appears to me to be a stupendous discovery in relation to the moral world, and that it is destined to be the fountain of a thousand blessings. This is not enthusiasm, but sober, solemn philosophy, because phrenology is not a fancy, but an interpretation of the constitution of nature in regard to our animal, moral, and intellectual faculties, and it is impossible that such a discovery can fail to be important. Its importance can consist only in rectifying existing error, or in carrying mankind forward to unattained good. Those who see phrenology to be true must, therefore, be prepared for its operating on ancient opinions, and opening up new views."

The essay was published with but a few unimportant alterations; it presented new considerations of interest to the believers in the doctrines set forth in the "Constitution of Man," and it did not excite any particular outcry from the opponents. Three months previous to the appearance of this article the Rev. Dr. Welsh, who was at the time president of the Phrenological Society, sent in his resignation of membership. Whilst still adhering to the science, he found it necessary to oppose the system of morality based upon it by Combe. The immediate cause of his withdrawal, however, was the determination of the Society to forbid the "introduction of all questions in theology which could not be supported by an appeal to facts in nature, and to logical deductions from them."

Combe was at this time suffering much anxiety in his domestic circle. His sister Jean died in the early part of the year (1831), and the state of his brother Andrew's health was far from reassuring. In the autumn, symptoms of pulmonary disease set in, and he proceeded to Naples for the winter. He had just completed his first work, entitled "Observations on Mental Derangement: being an application of the Principles of Phrenology to the Elucidation of the Causes, Symptoms, Nature, and Treatment of Insanity." The reports of its reception by the public, and especially by the medical

profession, reached him at a time when he believed his life's work was finished, and cheered him with the thought that he had been permitted to accomplish something in the service of humanity. The Doctor, however, recovered, and from 1832 to 1841 continued to improve in health, to the surprise of his medical friends, his condition having been one that seemed to preclude the possibility of recovery. But he had given implicit obedience to those laws of health which he afterwards expounded in his "Principles of Physiology, as applied to the Preservation of Health," and he reaped the reward. He returned to Edinburgh in 1832, and undertook the duties of a consulting physician.

Combe took a deep interest in the Reform Bill, and gave much time and attention to the subject of political and social reform generally. He anticipated much good from the passing of the Bill, although he regarded it as a means rather than as an end. He was a true reformer, and sought the solution of the problem which was disturbing the country and its statesmen by the education and elevation of the working classes. He was one of the first to arrive at the conviction that the long hours during which working men were compelled to labour throughout the week left them no opportunity for the cultivation of their moral sentiments. He, therefore, strongly advocated a reduction of the hours of labour, as well as the prohibition of ordinary work on Sundays. His doctrine was that part of every day and *all* Sunday should be devoted to moral pursuits.

With a view to supplying the need of intellectual and moral instruction for the industrial classes, Combe had long entertained the idea of instituting courses of evening lectures on science and philosophy for their benefit; but the opportunity of doing so never occurred until May, 1832, when, in compliance with a requisition from a large number of mechanics, shop-keepers, and clerks, he delivered a course of lectures on the evenings of Mondays and Tuesdays, beginning on May 7th, and finishing on July 26th. He had an attendance of over two hundred people, eighty-four of whom availed themselves of the permission granted by the Society to examine the skulls and casts in the Museum. The languor into which phrenology had fallen during the winter of 1831-32 was dispelled, and much enthusiasm for the science was manifested by the audiences in the Clyde Street Hall. The lectures had the further effect of causing the formation of an association for the arrangement of annual courses of lectures for the working classes on chemistry, natural history, and phrenology, combined with physiology; afterwards

botany, astronomy, and moral philosophy were included in the subjects of study.

As it was at this first series of lectures to working men that the trustees of a fund left by an ardent believer in and supporter of phrenology began to take active steps in fulfilment of their trust by supplying the students with copies of the "Constitution of Man" at the reduced price of 1s. 6d. a copy, it may be well here to give a few particulars about the said bequest.

William Ramsay Henderson, born in Edinburgh in 1801, was the only son of Mr. Alexander Henderson, an Edinburgh banker. Whilst his father was engrossed in business he was allowed to travel on the Continent, and to cultivate his taste for painting and poetry. He had an aversion to business, and this fact, combined with other circumstances, induced Mr. Alexander Henderson to convey his property to the care of trustees, with instructions to allow his son £500 per annum during his life, with the use of the mansion-house and pleasure grounds of Eildon, and to settle that estate on his son's children if he should marry and leave offspring. In the event of his son dying without issue, he allowed him to dispose of £5,000, and directed his trustees to pay that sum as his son might instruct them.

Phrenology was one of the subjects in which Mr. W. R. Henderson took a deep interest; he studied it earnestly, and devoted part of his leisure to the delivery of lectures on the subject to the working classes in Leith. By a will executed on the 27th of May, 1829, he conveyed to trustees such funds as he might be possessed of at the date of his death, and the £5,000 placed at his disposal by the trust-deed of his father (who had died in the July previous) in the event of his dying without issue. After providing for the payment of certain legacies and annuities, he orders that "the whole residue of my means and estate shall . . . be applied by my said trustees in whatever manner they may judge best for the advancement and diffusion of the science of phrenology, and the practical application thereof in particular; giving hereby, and committing to my said trustees, the most full and unlimited powers to manage and dispose of the said residue in whatever manner shall appear to them best suited to promote the ends in view: Declaring that if I had less confidence in my trustees I would make it imperative on them to print and publish one or more editions of an 'Essay on the Constitution of Man, considered in Relation to External Objects, by George Combe,'—in a cheap form, so as to be easily purchased by the more intelligent individuals of the

poorer classes, and Mechanics' Institutions, etc.; but that I consider it better only to request their particular attention to this suggestion, and to leave them quite at liberty to act as circumstances may seem to them to render expedient; seeing that the state of the country and things impossible to foresee may make what would be of unquestionable advantage now not advisable at some future period of time."

Mr. Henderson died in May, 1832, unmarried, and his settlement came into operation. The trustees nominated in the deed of settlement were James L'Amy, of Dunkenny, advocate, and George and Andrew Combe. These gentlemen, by a deed of assumption, in terms of the will, appointed, in August, 1832, James Simpson, advocate, and William Waddel, writer to the signet, as co-trustees. The total amount of the bequest fund used for the advancement of phrenology from 1832 to 1840 was £466 12s., leaving a balance of the amount applicable to the purpose of £196 17s. 7d. A large proportion of this amount was expended upon cheap editions of the "Constitution." The extensive circulation of that work at various prices rendered any application to the trust unnecessary after 1835. Besides the editions already mentioned, six editions of the work were published in the United States, and it was translated into French, German, and Swedish. A school version of the book was also demanded, and it was prepared with care and adopted as a text-book in several schools.

It was about this time that Combe became personally acquainted with Archbishop Whately. He had, in 1831, written for the *Scotsman* an appreciative review of his "Lectures on Political Economy," which brought about a correspondence between the author and his critic. Dr. Whately had just been elevated to the Archbishopric of Dublin, and had removed to that city; but whilst at Oxford he had felt some curiosity in regard to phrenology, and had allowed a cast of his head to be made. A duplicate of this cast he presented to Combe, with a request for an unbiassed decision on its development, observing at the same time: "If your science should ever be fully received, I am convinced that wigs or caps would be reckoned quite as much an article of decency as breeches," Combe's observations on the cast elicited the following from the Archbishop:—

"The only thing that strikes me as an error is in one point, where I have always understood the cranioseopist is the most uncertain on account of the frontal sinus. There ought to be more bone than brain in my locality; for I have a great knack at losing my way; and my history is nearly blind of

both eyes—chronology and geography.” Subsequently (in 1836), when Combe was a candidate for the chair of logic in the Edinburgh University, the Archbishop wrote as follows:—

“I have no hesitation in repeating what I have often said before, that I have derived both entertainment and instruction from the perusal of your works. In some points I differ from you, and in several others I remain in doubt; but much that you have said I consider as highly valuable. The anatomical and physiological portion of phrenology—what I believe you call organology—demands more attention than I have had leisure to bestow, to enable a cautious inquirer to make up his mind upon it. But I am convinced that even if all connection of the brain with the mind were regarded, not merely as doubtful, but as a perfect chimera, still the treatises of many phrenological writers, and especially yours, would be of great value, from their employing a metaphysical nomenclature far more logical, accurate, and convenient than Locke, Stewart, and other writers of their schools. That the religious and moral objections against the phrenological theory are utterly futile, I have from the first been fully convinced.”

Towards the end of 1832, phrenology suffered another severe loss in the death of Dr. Spurzheim. On June 20th he sailed from Havre to the United States, where his reception was most cordial, his own works and those of Combe having obtained for phrenology a considerable number of intelligent disciples there. On September 17th he began a course of lectures in Boston, and soon after another course at Harvard University, Cambridge. He was thus occupied six evenings during the week, in addition to delivering five lectures in the day-time before the medical faculty on the anatomy of the brain. These exertions, together with the demands made upon his time by social duties, put too great a strain on his constitution; he caught cold, was prostrated by low fever, and after fifteen days' illness died on the 10th of November. His death created a profound impression in the States, and he was honoured with a public funeral. His remains lie in one of the vaults of the Mount Auburn Cemetery. The first intimation of Spurzheim's death was conveyed to Combe by Mr. Nahum Capen, of Boston, who recently published his recollections of the event in his “Reminiscences of Dr. Spurzheim and George Combe.”

Combe received an invitation from his American friends to proceed at once to Boston, in order to complete the work Spurzheim had begun; but he felt obliged to decline on account of his professional business, which he had not been able as yet to see his way to relinquish. In a second invita-

tion, he was assured that he would make as much money as would compensate him for some sacrifice at home; but he prudently resolved not to alter his course until he could take the course he so much desired.

Meanwhile phrenology was making steady progress and gaining ground in various parts of the world. Gall's chief work, in six volumes, was translated into German, as was also Combe's "System." The number of lecturers on the science was increasing in England, Scotland, and America; in Paris a society was formed and a journal started similar to the Edinburgh *Phrenological Journal*; and, most important of all, the direct bearing of Phrenology on education was beginning to be understood and appreciated.

(To be continued.)

THE STUDY OF PHRENOLOGY MADE EASY.

CHAPTER VI.

The student of phrenology should not be governed rigidly by the shapes of the organs as they are marked out on the bust, for the boundaries are not necessarily and always correct. The lines are arbitrary, and not as the brain is shaped. It would be more appropriate to have no lines at all; only put the name of the organ where it is found, letting each student use his own judgment as to the shape and extension of the organ. The lines may lead some to think that the organ is really shaped as marked.

The definition of the organ also is rather arbitrary, because it must be put into words and condensed as much as possible. When a liberal definition is given it is meagre in its meaning and application, for the faculty is adapted to a universal want and condition of nature so far as animal organization goes, and continues up to man; and the same is true with reference to those faculties the animal has not as well as those it has. A faculty means a separate power, a distinct function, to think, perceive, or feel; a separate consciousness that can act by itself, a function that is adapted to its own work and relationship. It may exist in one animal and not in another. It may exist in man and not in animals. It may be early or late in development. It may be stronger or weaker than other faculties in the same individual or in the different sexes. It may be active or quiet independently of the other faculties. It may also be cultivated or diseased by itself. It may be exhausted or invigorated by itself. It is transmitted

from parents to offspring the same as any physiological organ and function, and has a certain organ adapted to its manifestation just as organs of the body are adapted to certain functions. It has its own special labours to perform and relations to sustain.

The size of the organ does not necessarily indicate its activity, health, or strength independently of culture and quality of organization. Each faculty exists as a necessity to make the mind complete in its consciousness, as well as to do what the mind is required to do ; just as every organ and function of the body and mind are necessary to make a complete man or animal, as the case may be, to do what that body is required to do to make it perfectly adapted to its condition.

The brain and its organs cannot be correctly estimated without reference to the whole body, and especially without reference to the temperaments and the activity of the various functions and organs of the body. Those faculties that are most in sympathy with the body are most manifest with a high development of the vital temperament, while the reasoning and moral faculties are facilitated to the highest degree of action and power by a predominance of the mental temperament, and in proportion as the osseous or bony structure predominates will all the faculties manifest themselves more steadily.

In judging of the power of a faculty, reference should be had to the general shape of the head and to the even development of the brain. Persons with a high degree of the vital temperament and large Amativeness, and all the social brain large, with large Approbativeness, will be less liable to exercise the reasoning faculties, vigorously and continuously, although of the same size as the social, as where the mental temperament predominates, and the social brain and Approbativeness are equal with the reasoning brain.

COMBINATIONS.

Man is, in some respects, like a watch. All the wheels, cogs, screws, pins, and springs are distinct and individual, and are necessary to help to keep time. Each one must be in its place, and perfectly adapted to all the other parts in order to a perfect working. One part missing or imperfect in any way would render the other parts useless. So the different organs and functions of the body, being distinct and individual, have a power of their own, yet no one of them gives life or vitality, nor do all combined ; yet the whole,

acting together, and in good working order, set in motion by the life principle, produce perfect vital action.

The stomach is the receptacle of food and the reservoir of solids and liquids to nourish, strengthen, and cause the body to grow. The lungs receive oxygen in the air we breathe to perfect the process of digestion, by giving heat and thus vitalizing the food we digest. The arterial system circulates the vitalized fluid throughout the entire system, and the veins bring back the exhausted blood to be revitalized by passing through the heart to the lungs, whence it passes back again through the heart into the arteries to do the same thing over again. The heart, with its two sets of valves, does the double work of attracting and propelling the blood. The bones and muscles, with the skin, give the frame and the working machinery of the body. The nerves of motion, connected with the mind and will, set the machinery in motion when there is an object to be accomplished by way of gratifying the body or satisfying the mind, but it is left to the nerves of sensation to be the messengers of intelligence from all parts of the body, making known all its wants and conditions, and thus through the action of the will the whole machinery is set in motion to do the work of life. These organs and functions of the body, when kept in perfect working order, fully cultivated, and harmoniously combined in action, do the work of life, and satisfy every demand of the body. When all the faculties of the mind and functions of the body exist in full degree, are properly exercised and directed, and act in unison one with another, every faculty and function acting according to its grade and importance, they make up a perfect mind in a perfect body.

The five senses have a powerful stimulating influence, and are foundation qualities of the mind. The eyes and ears are inlets to the mind, and make us acquainted with the external world, and help us to many ideas and much general information, and are a powerful stimulus to action. Taste, smell, and feeling introduce us to the conditions and qualities of things, and help us to judge correctly of their use. At first the different faculties act separately to satisfy simple desires, but as the mind unfolds and develops, and the individual has more experience, wants, and business, more faculties are brought into action at the same time, and the more culture and discipline the mind has, the more the faculties work together harmoniously, and help to give stability to the character. A special education, and particular kinds of business, life, and habits bring into action the faculties in various combinations, and varied phases of character.

In the natural, unperverted, unbiased, yet progressive mind, the tendency is for the lower faculties to be subject to and act in unison with the higher faculties, for the whole tendency of the mind is upward and onward, or forward. When the faculties in the base of the brain monopolize all the other faculties, there is animal force, brute passion, knowledge of physical objects and actions, and that kind of sense that knows how to support life and enjoy physical existence, the greatest sources of enjoyment being to eat, drink, destroy, defend self, and acquire property. Add Secretiveness and Cautiousness, and there will be tact, guardedness, shyness, and timidity.

The selfish brain gives energy and force, and the crown of the head gives ambition; the two combined give emulation, desire to rise in society, to become famous, and to be heroic; they are most manifest on the battle-field, or in political agitations. When the selfish faculties act with those in the crown of the head, the man will defend his person, his character, his liberty, and honour.

Combativeness and Destructiveness take a physical direction when there is a predominant development of the muscular and bony structure, but when the mental temperament predominates, with large Causality and Conscientiousness, there will be a stronger tendency to mental energy, to debate rather than to give blows. Hope, when controlled by Acquisitiveness, will lead to speculations in business; when it is controlled by Combativeness it will embolden the soldier, and make him venturesome on the battle-field or in places of riot and danger. Approbateness and Self-Esteem, stimulated by Combativeness and Hope, make persons use the pronoun "I," and talk about what they have done, and are going to do, of an extraordinary character. Combativeness, with physical strength, gives physical courage; with the moral brain it gives moral courage, especially if the upper portion of the organ predominates. Combativeness, with Amativeness, will fight a duel for a loved one when passion is excited; but when it is not gratified, Combativeness and Destructiveness combined will unite and be cruel, and perhaps kill. Combativeness, with the social and domestic brain, will defend family, home, and country.

A healthy, vigorous Alimentiveness, when excited, will wake up, put into action all the selfish organs and physical powers, and be a great stimulus to industry and economy. Alimentiveness, with Acquisitiveness added, will collect and store away food against coming want, and, with Secretiveness and Cautiousness added, will hide it in some safe, private

place, as in the case of the squirrel. The rabbit, although a great eater, with small Cautiousness, Secretiveness, and Acquisitiveness, lays up and hides nothing.

To make organs, pianos, and other musical instruments, and to become a good musician, there should be a correct sense of sound, Constructiveness, Tune, Time, Order, Calculation, Eventuality, Form, Size, Comparison, Imitation, and Ideality, joined to a good physical organization. To compose music, the addition of the moral brain, Causality, and a highly susceptible mental temperament will greatly facilitate. To be sound and original in grammar, philosophy, theology, law, and politics, the reasoning and moral brain, with Order, Calculation, and Constructiveness should be large, with the motive and mental temperaments.

To be a naturalist, a scientific man, or a man for every-day life and out-door business, all the perceptive faculties should be large, with a high degree of the vital and motive temperaments. To organize, systematize, lay out work, and plan for others, it is necessary to have a vigorous brain, an active mind, with Order, Calculation, Constructiveness, and the reasoning brain. To oversee a body of men, to govern and control, as on ship or on the battle-field, and take great responsibility, a large brain and a well-developed body, with active or large Self-Esteem, Firmness, Conscientiousness, Combativeness, Cautiousness, and Causality are quite necessary; and if the head is otherwise well developed so much the better. A barrister should have a good condition of body, and a fully developed brain, with all the organs wide awake and highly cultivated, with large Constructiveness, Order, Language, Eventuality, Human Nature, and Combativeness, joined to large Conscientiousness and reasoning powers. A preacher should have a well-balanced and disciplined physical and mental organization. A teacher needs the same, with great patience, and Order, Eventuality, Comparison, and Mirthfulness all large.

L. N. F.

ALL things are engaged in writing their history. The plant, the pebble, goes attended by its shadow. The rolling rock leaves its scratches on the mountain side; the river, its channel in the soil; the animal, its bones in the stratum; the fern and leaf, their modest epitaph in the coal. The falling drop makes its sculpture in the sand or the stone. Not a foot steps into the snow, or along the ground, but prints, in characters more or less lasting, a map of its march. Every act of the man inscribes itself on the memories of his fellows and in his own manners and face.—*Emerson.*

AN OLD MAN'S STORY.

CHAPTER II.

It was long since Farmer Wade and his family had spent such a happy time as they did the Christmas night of 1812. They formed a picture of happiness as they sat round the fire; and none looked so bright and happy as the old farmer himself. Martha sat beside him with her baby in her arms; Frank was on the other side of the fire-place by Mrs. Wade, and all around were the other members of the family. It was a grand circle of brothers and sisters, and father and mother looked very beautiful at the head of the whole. The great log on the fire blazed and crackled, and threw out showers of sparks, lighting up the room and the family pictures on the walls better than if a dozen gas jets had been alight. On the wall, over against the fire-place, hung the portrait of an uncle of the farmer, and a great favourite of his; and he was telling the admiring circle about his marching with the Duke of Cumberland to Nottingham against the Young Pretender, and about his exploits at the battle of Culloden, when there suddenly came a most unusual and startling knock at the door. Will went to inquire into the cause of the disturbance. He quickly returned, followed by two rough-looking men, who without question or parley seized upon Frank Hodder, put handcuffs upon his wrists, and ordered him to follow them. It all happened so quickly that neither the farmer, Mrs. Wade, nor anyone else had time to interfere, and the men would have dragged their prisoner out of the house had not Mr. Wade, suddenly recovering self-possession, thrown himself before them, and demanded the cause of the outrage.

"Sheep-stealing—and a bad case, too," said one of the men gruffly, producing a warrant.

It was signed by the Rev. M. Thornton and Lord Ellerby, magistrates. The farmer read it over, and handed it back to the minions of justice, like one paralysed. Every one stood as though petrified; if they had been suddenly transformed into stone they could not have looked more helpless and aghast. No human pen can describe the despair that then seized upon the whole family. The agony of that night will never be known, unless somewhere in the dim vast eternity there is a record of what takes place in human hearts as minute and as durable as the geologic records of the rocks.

All were completely paralysed until the young man was dragged out into the frost and snow. Then, with her tender

baby in her arms, the wife and mother, refusing all comfort, resisting all remonstrance, rushed after her husband. Others followed, while the farmer put horse into gig and drove to Lord Ellerby's, and in a short time the house was almost empty. The fire blazed and crackled, and the stars shone as though the earth was one of the palaces of the Heavenly Paradise, wherein was no sin, no crime, nor sorrow; but the house was a house of woe.

It would be a long story to tell of all the miseries that followed—of Frank's examination before the magistrates, of his long lingering in prison until the assizes, and then of his being brought before that terrible tribunal where men's lives and fortunes are dealt with as though they were idle counters in a game. The long and short of it is that a sheep had been killed in Farmer Walton's big field, and that it had been traced by footmarks and by blood and other evidences to within a few yards of Frank Hodder's cottage. Protestations of innocence were useless. He was an unpopular man, having been known to teach children to read and write, and also men to think that they ought to be better fed and much more comfortable than they were, if things were as by rights they should be. His father-in-law had turned his back upon him, and only had him in his house (as they said) on Christmas night to shield him on account of his daughter. All these things went against him. Besides, who could have committed the crime if he had not? It was all so simple in those terrible times. The poor were starving; what so plain as that they should steal sheep to eat and live? The result was that Frank Hodder was found guilty, and narrowly escaped with his life. But life-long transportation to a penal colony was nearly as bad as death.

It seemed a long time, that twenty-five years of Frank's sentence, and few thought they would live to see it finished. But time flies fast. Old men grow grey and feeble, and children grow up to manhood and womanhood. The generations pass away, but here and there an old man lingers a long way over the allotted three-score years and ten. It was so with Farmer Wade; it seemed as though he had made up his mind not to give in until the wrong had been righted; and that was ever the burden of his thoughts: dead or alive, his unhappy son-in-law's innocence must be established. But the time, which he always predicted would come, came slowly, and from fifty-five he grew to seventy-five, and still the mystery remained unsolved.

Meanwhile the little baby Alice had grown to womanhood; and such was her grace and beauty, and her goodness withal,

that she had suitors from far and near. They all got small encouragement, however ; for Alice had vowed she would never wed until her father's innocence had been proved ; no husband of hers should be open to the reproach that he had married a felon's daughter.

There was one, however, from whom it was hard to turn away, and ever give the same denial. This was Ralph Denton, a nephew of Farmer Walton, and the heir to his wealth, as the gossips said ; for the old man had never married.

George Walton—for so he was more frequently called than by the more homely title of "Farmer"—rented the manor lands, and was reputed one of the richest commoners for miles round. He was a very reserved man, and was seldom seen by any one except on business ; even business matters he had of late referred more and more to Ralph, retiring more and more within the seclusion of his house. Among untaught and unsophisticated people no one can withdraw from communion with his kind in this way, but his reputation suffers for it ; and so it was with Farmer Walton. Some said he was an astrologer ; others that he practised the black art, and was on intimate terms with the enemy of mankind. Nobody was known to have been invited to his house for years ; and it was noticed as a significant fact that his house was always darkened and silent on Christmas-Day. But for all that he was a regular attendant at church, and was even chosen churchwarden of the parish—a circumstance which scandalized many.

George Walton had lived his lonely life for many years, and it was about eleven years after the memorable Christmas of 1812, and when consequently Alice Hodder was about twelve years old, that he took his nephew to live with him. Ralph proved to be of a very different disposition to that of his uncle : frank, good-hearted, and intelligent, and withal as handsome a youth as could easily be found ; he soon won the hearts of all who knew him. No wonder if Alice and he became fast friends as boy and girl, and more closely attached as years grew upon them. But then came the barrier of Alice's vow, and besides that Farmer Walton's disapproval : so that the old adage about the course of true love never running smooth was borne out.

Despite his hard, distant nature Farmer Walton seemed to love his nephew very much, and although he discouraged his attachment to Alice Hodder, he rather tried to reason and persuade him out of it than to make any threats of disfavour. He spoke of their different stations in life ; showed that Alice's grandfather would not be able to do much for her, while her

mother Martha was penniless ; and hinted at the disgrace that would attach to Alice as a felon's daughter. In all this, however, no one suspected Ralph's uncle cherished any bitter feelings against Martha Hodder and her daughter. It was known that he had been a suitor to Martha, and that she had chosen the poor man in preference to the thrifty farmer ; but it was thought George Walton had treated his rejection in a matter-of-fact manner, and had seen Martha suffer the penalty of her folly in wedding a poor man with pity rather than with rejoicing.

Matters stood in this position when, as Alice was about completing her twentieth year, Ralph noticed with dismay that a fresh suitor, a young farmer recently come into the neighbourhood, was visiting a great deal at Dene Farm, as Mr. Wade's house was called ; and the thought that he might be supplanted in Alice's affections wrought him up to madness. In this state of mind he suddenly determined to know his fate, and for this purpose sought a meeting with Alice. When he had told his story, Alice gave him to understand that there was no one she cared for so much as for him, but that until her father's innocence had been established she would give her hand to no one.

The full extent of her resolution had never been laid bare to Ralph before ; all that he had known was, that for the present, she had no intention of marrying, etc. Now he learned for the first time all the details of the crime for which Frank Hodder had suffered, as his family believed, innocently and in consequence of a conspiracy against him.

That same night—it was drawing on towards Christmas—Ralph told the whole story, just as he had heard it from Alice and her mother and Alice's uncle William, who now carried on the farm, to Farmer Walton, as they sat by the parlour fire. It was nearly twenty years since the old man had heard so full a recital of that well-remembered story ; he had never heard it so pathetically told. It was the first time he had heard that Martha Hodder and her friends believed that her husband had been the victim of a foul conspiracy ; it was the first time, too, that he had been asked if he had ever had a similar suspicion.

All that took place that night within the lonely walls of Manor Farm were never known but to a few. What the outside world knew was, that that night George Walton was seized with a fatal illness. The medical men said it was a paralysis of the system, extending to the heart. But whatever the physical effects, the cause lay deeper than trouble with any vital function : the disease was in the soul. All these

years he had been fighting with conscience, and conscience had beaten him at last.

Suffice it to say that George Walton was the wronger of the unfortunate Frank Hodder. He it was that killed the sheep in his own field, that laid every link in the chain of evidence that brought the crime to Hodder's door, and that then applied to the magistrates for a warrant for his arrest. For twenty years the crime had been upon his soul. He had seen his victim's wife—her whose love he had once sought, offering her in return a life-long devotion,—he had seen her grow grey and prematurely bowed with grief. He had seen tears stream from her eyes as the clergyman recited the words: "Show Thy pity and mercy upon all prisoners and captives;" and had marked with what fervour she had responded: "We beseech Thee to hear us, good Lord." He had seen her child grow month by month and year by year in grace and beauty; had seen her young heart just bursting into life and love; and he would have dashed the cup of joy from her lips as he had dashed it from the lips of her parents.

But hard-hearted man as he was, it was not to be so! The bitter grief and the prayers of the innocently condemned man lay upon his soul, and, though *in extremis*, it could not pass. He had resolved that he would take the secret into the grave with him; but in the still hours of night there came upon him a great fear—the fear of the great Judge, and he trembled and shook until large drops of perspiration stood upon his brow.

He could bear it no longer; so he called Ralph to his bedside and bade him cheer up, for that he should have Alice and be happy yet. "Send for her, Ralph, and for her mother, quickly, and then come back and sit by me, for I have not long to live."

Ralph whispered something to the effect that he might yet get well and live.

"No, no, Ralph, it's all over, and best that it should be! My God!"

He lay for a long time, with his glassy eyes fixed upon the ceiling, his hands clasped on the coverlid, and his lips working, apparently unconscious of anything about him, until footsteps were heard at the door, and then whispering voices below. Then he became greatly agitated, and asked of Ralph who it was that had come.

"It is Alice and her mother," he replied.

"What have they come for?" asked the dying man.

"You asked me to send for them," replied the young man.

"Oh, yes, so I did! I forgot. There's no one else, is there?"

"Only William Wade ; he came with them because it is so late."

"That's right. Will's a good lad, an'll hurt nobody. Bring little Alice up ; I want to say something to her afore I die."

"And her mother ?" asked Ralph.

"No ! no !" cried the old man almost in terror ; "not Martha—not his wife ! Ask her to stay down with Will ; it'll only be for a minute or two."

Ralph brought Alice to the bedside, and the old man, taking both their hands in his, joined them together and said : "Alice, girl, you may wed Ralph ; your father was innocent ; yes," seeing her start, "innocent as the child unborn : I was the guilty man."

Then he told her how he had loved her mother, how she had rejected him for her father, how he had then resolved to compass his ruin, and how he had succeeded. "I thought," he said, "I should have been happy then ; but God only knows how I have suffered—how I have been punished !" Then, turning to his nephew, he said : "Ralph, I have left everything to thee ; and I leave it to thee to make them—Martha and Frank—all the amends money can do." After a pause, in which he seemed to gasp for breath, the dying man said with great effort : "It all came of my love for her ! it all came of my love—!" and so passed away.

It was not long before Alice Hodder and Ralph Denton were married ; but several months necessarily elapsed, because Alice asked that her father, whose innocence after all these years had been vindicated, should be present ; and when it had taken place and Frank and his wife were settled in a cottage close by the Manor Farm, which Ralph had put them into, as well as amply provided for their declining years, they found some recompense for their long years of suffering in the happiness they saw Alice and Ralph enjoy. The succeeding Christmas was an especially happy time, spent as it was by every one at Dene Farm ; but it was the last one old Mr. Wade lived to see : for he said, "Now that I have seen the wrong righted I can die in peace," and it was but a month or two later when they laid him beneath the churchyard turf.

C. N.

It has been decided, in response to a very general demand, to give a course of practical instructions in phrenology in Mr. Fowler's rooms, in the Imperial Buildings, Ludgate Circus, beginning early in March and extending over three months. Particulars may be had on application to Mr. Fowler.

Poetry.

THE FISHER MAIDEN.

(*From the German of HEINE.*)

Thou beauteous fisher maiden,
Row quick thy boat to land ;
Come to me and sit thee beside me,
We'll converse hand in hand.

Lay thy head on my bosom
And have not a fear of me ;
Each day thou, careless, confidest
Thyself to the wilding sea.

My heart is like to the ocean—
Has storm, and ebb, and flow,
And many a pearly treasure
Rest its deep billows below.

Book Notices.

The Evidences of Natural Religion and the Truths Established Thereby. By CHARLES MCARTHUR. (London: Hodder & Stoughton.)

This is a work which ought to be widely read and pondered. It is on the whole an able *résumé* of the subject it treats from the standpoint of science. The fault we should find with it is that it is too condensed. The author might have allowed himself at least double the space. In one respect we must take exception to the author's method of selection. On what ground does he ignore the discoveries of Gall? or is he entirely ignorant of them? He should at least have stated the facts, even if he only gave them as an hypothesis; for if true there has been nothing discovered in the domain of science of so great importance since man became an investigating being. It is not true, as he affirms, that "it has not yet been found possible to localise any of the higher moral and intellectual faculties;" nor is it any longer "open to question whether those faculties possess habitats topographically distinct from one another." On what method of selection does he accept the statements of men who come to their conclusions with reference to man's mental powers by the torture of monkeys, and refuse those of men who have arrived at their results by the close and protracted observation of human brains? He accepts the fact that the lesion of a certain convolution of the frontal lobe results in *amnesia verbale*, hailed as a great discovery by Broca, after Gall had discovered it and announced it nearly a

hundred years before: why not look into the latter's physiological system, and see what he has to say as to the location of mental functions which Ferrier and the rest will one day discover?

Platt's Essays. Vol. I. Business—Money—Economy. By JAMES PLATT. (London: Simpkin, Marshall, & Co.)

These Essays, the author says in his introduction, are "re-arranged, revised, and added to." They now form a bulky volume of over five hundred pages, which is packed from cover to cover with sound and sensible information and advice on the subjects treated. "My object," says the author, "is to make men think more of 'life' as it is; to study 'living'—how to live; what to do with life; but, above all, to alter the prevailing tone that life has to be undergone as a kind of penance." A good photographic portrait of the author fronts the title page, from which we are tempted to make a few remarks about his character. The head is a remarkable one. It is large, high, broad in the region that gives energy and industry, and long in the intellectual lobe. Its size indicates general strength of mind and mental endurance; the height indicates a lofty moral tone and high principle; and the intellect shows that he is alive to all that is going on about him. He "takes stock" of man, thing, or circumstance in an instant; he is orderly to a fault, systematic, and punctual to a minute; a great critic, observant of minute as well as of great things, very ingenious and clever at contriving ways and means, practical as "all out doors"; and, though fond of beauty and style, not inclined to sacrifice utility to beauty. He is a man ordinarily of few words, but he knows so much from reading and observation, that when he begins to tell it he hardly knows when to leave off. Such is the man; such is his book.

Facts and Gossip.

A CURE FOR HEADACHE.—"The first occasion on which I ever saw Dr. Whately," observes a correspondent, "was under curious circumstances. I accompanied my late friend, Dr. Field, to visit professionally some members of the Archbishop's household at Redesdale, Stillorgan. The ground was covered by two feet of snow, and the thermometer was down almost to zero. Knowing the Archbishop's character for humanity, I expressed much surprise to see an old labouring man in his shirt-sleeves felling a tree in the demesne, while a heavy shower of sleet drifted pitilessly on his wrinkled face. 'That labourer,' replied Dr. Field, 'whom you think the victim of prelatial despotism, is no other than the Archbishop curing himself of a headache. When his Grace has been reading and writing more than ordinarily, and finds any pain and confusion about the cerebral organization, he puts both to flight by rushing out

with an axe, and slashing away at some ponderous trunk. As soon as he finds himself in a profuse perspiration he gets into bed, wraps himself in Limerick blankets, falls into a sound slumber, and gets up buoyant."

DR. CARL SEILER recently addressed the Philadelphia Pharmaceutical Association on the subject of "Mouth Breathing." He said that many ills that are ascribed to other causes are in reality due to the effects of this habit. Nature intended the nose to be used for inhaling and exhaling the atmosphere, and fitted it up for that purpose. The mucous membrane contains what are termed serous glands, which give moisture to the air as it is inhaled, while it is warmed and purified by its passage through the nose. When taken directly through the mouth into the lungs, the air is apt, by reason of its lack of moisture, impurity or improper temperature, or all three, to act as an irritant, especially in the larynx and in the air cells of the lungs. Owing to the imperfect oxygenation of air inhaled directly by the mouth habitually, there is often set up in the system a condition that gives the symptoms of dyspepsia, consumption, etc.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

T. O. (Leeds).—The photograph indicates the following characteristics:—The gentleman has a strongly compact organization and constitution; has a high brain, with a strong will, and cool and determined spirit, and was organized to be a master and superintendent over others. He has more than an average amount of general intellectual ability, which would show itself as a manager and organizer rather than in scholarship; has excellent powers to plan work, and exercise judgment in business where much general forethought is required; is usually cautious in speech and action, but subject to high states of excitement, and liable at such times to go to extremes; not, however, cruel and revengeful, or disposed to be quarrelsome; but is so self-contained and has such a strong individuality that he cannot very well yield to others, or allow others to do his thinking for him.

F. E. (Doncaster) appears to partake of the nature of her father in spirit; is characterized for more mental than physical ability, although rather tough, and capable of enduring a good deal within

the limits of her strength ; still she could not bear a rough life, or continuous hard work. Her general disposition is amiable, or at least she is not given to a rough or severe temper, although somewhat jealous. She is firm, persevering, steady, and uniform in purpose ; has good practical common sense, knowledge of things, ability to learn from experience, and is more sagacious and intuitive in her powers than original, witty, or brilliant. She is a student of nature, fond of the plain and simple, not given to fault-finding, not self-condemning, and not characterized for "gush," or extra exuberance of feeling. She could teach, write, look after the affairs of the house, be interested in the growth of fruit, flowers, &c. ; cut out, fit, and do work that requires sense of form and size, but she is not versatile either in talent or manner, and is never much different one day from another.

W. H. (Derby).—Constitutionally given to study and deep thought ; are trying to find out something no one else knows ; are quite original, and have many ideas of your own ; take ridiculous views of things, and have a quick sense of the humorous and absurd ; are given to criticism, full of contrivance, fond of the study of mathematics and complicated questions ; naturally good at figures, and with application could succeed in the exact sciences. You value your possessions highly, whether goods or land ; are energetic, rather forcible, resolute, and not afraid of going ahead, even in the face of great difficulties ; have confidence in yourself and in your own opinions. Memory of details is not good, but is strengthened by association ; are forcible rather than copious in speech ; orderly and methodical in your work ; and naturally qualified for a position where originality, organizing power, calculation, and ability to manage men are required, as, for instance, a manufacturer, engineer, surveyor, contractor, &c. There is some danger of your being too energetic, and so straining your constitution. It would pay you to study phrenology for the hints it would give you as to how to use your powers to the best advantage.

A. L.—Yes ; great intellectual powers most frequently accompany a medium size of body with a large head. It is a known fact that the world's greatest men have been men of ordinary stature and strength, but with heads larger in proportion than their bodies.

X. Y. Z. (Cambs.).—You are not favourably developed in the vital temperament, especially in digestive power. The brain monopolizes too much. Are given to extra thinking ; very eager to know all the details of everything ; can write better than speak ; characterized for sympathy rather than philanthropy ; very exacting in a moral sense ; very firm and tenacious in your opinions ; have by nature a high degree of refinement, sense of perfection, order, and neatness ; and are very anxious and careful about results. You are a man of more than ordinary truthfulness and very particular in your statements to say only what is true ; are also peace-loving, not contentious,

ingenious, more than commonly unselfish, and quite plodding in thought and effort.

R. S. (Highgate).—One peculiarity of your organization is that you manufacture thought and feeling faster than you can express them, you may talk rapidly but not copiously. Are exceedingly ardent, earnest, and excitable; your feelings may get the advantage of you at times, and you may in consequence occasionally appear to have more temper than you really possess. Are very fastidious; have more than ordinary sense of beauty and perfection; are conscious of little defects either in yourself or in others; and are quite mirthful, and at times rather brilliant. You have much general intellectual curiosity, and are wideawake to what is going on. Your thoughts, however, run too quickly from one thing to another; need to check impulse, and use all the pride and will you possess. You have scarcely enough vital power to meet the demand of the brain and mind: hence need to take care of your health.

W. R. (Birkenhead).—Your mind is of the practical scientific type: you are exceedingly fond of experiment, interested in the external world, and would take great pleasure in travelling and exploring; have a superior faculty for gathering facts, and delight to tell your experience. You might succeed in some scientific sphere of life requiring observation and experiment; can work well by the eye and measure distances accurately; have an insight into truth, and know much about many subjects you have not really studied; are open, frank, candid, kind, tender-hearted, and a little short of hardness of spirit, and a due amount of worldly wisdom.

J. T. B. (London).—You are strongly organized and well adapted to physical labour; should not live a quiet, easy life; need to work off vitality through physical rather than mental channels; have strong feelings and impulses, and will need to be careful what habits you form, so as to be free and your own master, are not cruel or hard in your nature, but have considerable pride and consciousness of your importance, and may sometimes allow yourself to be too much affected by that feeling. Your tendency is to science, to facts, and to the application of ideas; you desire positive knowledge, and are comparatively sagacious and quick to discern truth; are generally in earnest and prefer to deal with others in the same way. Had better direct your attention to some business into which you can throw your whole soul, and it should be something requiring both activity and energy.

W. G. (Poplar) is capable of high moral culture, though he will not have an easy delivery as a speaker, nor a very active memory as applied to details; has good judgment and power to think and plan work; is better adapted to wholesale than retail, and to indoor than outdoor business, to something having a bearing on philosophy rather than on science; has more of the intellectual and moral than of the social and domestic qualities; highly ambitious, very tenacious, and quite steady and strict in life and conduct. He could sustain him-

self where it requires one to take responsibilities, like being at the head of a business, overseeing men and giving directions. His studies should be directed to philosophical and theological subjects, as those give him the greatest pleasure, and as a pastime should interest himself in the moral and progressive movements of the age. Should cultivate speaking talent and have a high aim.

M. A. C. (Leicester).—The following traits are noteworthy in your character. You have a great will and have been used to exercising it; you do not allow others to dictate to you, and are quite capable of taking care of yourself; are very sympathetic and capable of showing a great deal of kindness of heart; strict in doing what you think is right; not very reverential, and inclined to look at everything in a very matter-of-fact light; are of an observant disposition, quite neat and orderly, and very quick to understand things, but troubled with a bad memory both of words and things. You ought to be in a position of trust, as a matron, or something of that kind.

T. R. O. (Shrewsbury).—Your leading characteristics are as follows: pride, firmness, and independence large; the social qualities, including friendship, love of children and home, fully developed; energy, force, and perseverance good; the moral faculties highly influential, especially sympathy and conscience; and, lastly, the intellect as a whole well represented. But as regards the latter, you are better adapted for the study of philosophy, theology, etc., than for the study of science. Are critical, analogical, and somewhat original; have fair constructive powers, taste, wit, and youthfulness of disposition. Your memory is rather poor in respect to dates, events, and details, but better of things you see, places you visit, and principles you understand. You have enough intellectual and moral power to qualify you, with an education, for a superior position.

T. C. (Cleator Moor).—It is not true that the interior and exterior tables of the skull "differ considerably." They differ in some cases; but in healthy skulls the parallelism is very close. Examine for yourself; take no one's—especially a prejudiced person's—dictum on the point. See the chapter on "The Brain and Skull" in the *Manual of Phrenology* (price 1s.).

J. W. (Ontario, Canada).—The price for delineations from photographs in the form you mention is half-a-guinea.

A. B. (Hyde).—The photograph sent is not a very good one for phrenological purposes, because of the way in which the hair is done. It indicates a good, practical intellect and a wideawake disposition, with good language, observation, order, and fair memory. The physiology is a good one, and should be accompanied by both health and strength (if proper exercise be taken). You had better, however, send another photograph when you get one taken. The *Journal* referred to is a spiritualistic (English) one.

G. S. B. (Lewisham).—The heart is simply an organ for the circulation of the blood, and has nothing to do with the affections, which come from the social faculties of the brain.

THE
Phrenological Magazine.

APRIL, 1883.

JOSEPH COWEN, M.P.



MR. COWEN is one among a thousand as regards organization. His temperament shows a fair blending of the influences of the vital apparatus with those arising from a good bony and muscular organization, and a good development of the nervous system. The effect of the former is to make him an active, industrious man, full of healthy impulses, while the latter makes him wideawake to all that is going on around him.

His phrenological developments are somewhat as follows. He has a heavy base of the brain, which gives him ample energy and force of mind. His social brain is large, making him warm, genial, and companionable among friends and in society. He is high in the crown of the head, especially in approbateness, which gives him great ambition and stimulates him to excel and seek popularity. At the same time he has sufficient pride and self-esteem, when combined with his very large conscientiousness, to enable him to take the unpopular side and maintain his ground, when he thinks he is in the right. The height of his head above the ears indicates great power to determine upon a course of life, and to show unusual strength of purpose. His large Firmness and Combativeness give him much tenacity in debate, and make him a resolute opponent. At the same time his inferior Veneration allows him to be Radical in his opinions, and not afraid to differ from others. Benevolence is very large, and has a marked influence upon his whole character, rendering him generous in his impulses, liberal in sentiment, kind-hearted to a fault, and whole-souled in his hospitalities.

His intellectual powers are of the practical, available type. He is a man of knowledge, one who never loses sight of his experience. He is quick to detect inaccuracies, false reasonings or inferences, and seizes the point of an argument or a joke with great rapidity. He is very intuitive in his percep-

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tions of a truth and of the characters and motives of men. In other words, he sees below the surface, and his sagacity will often enable him to see further ahead than men who apparently follow the facts more closely. There is, indeed, something akin to a prophetic strain in his mind.

His memory of his own experiences, of impressions made on his mind, and of what he has done, is good. He has a favourable intellect to organize, arrange, systematize, and do business methodically. He wants money as a means to help him in his undertakings, rather than to hoard and keep. He possesses a good degree of language, which, with his strong feelings and impulsive temperament, enables him to deliver his thoughts in a free and forcible manner. His Constructiveness, Wit, Ideality, and Sublimity, which aid in giving argumentative strength and oratorical force, also give him considerable ability as a writer. If he had been a man of a less active temperament, and consequently more given to contemplation, he would probably have become a writer—possibly a poet—for the poetical element in his nature is very strong.

It need hardly be said, that with such a height of head as his portrait indicates, as well as from what has already been indicated, Mr. Cowen must be a man of great moral depth of character, as well as of religious fervour, although it is probable he does not make much show of his religion. L. N. F.

Mr. Cowen was born at Blaydon Burn, near Newcastle, in the month of July, 1831. His father, Sir Joseph Cowen, knight, who preceded him in the representation of Newcastle, was originally a working blacksmith. He was of an inventive turn of mind, and when the discovery of gas began to be utilized he hit on several ingenious contrivances for facilitating its manufacture. Before long he was a wealthy man, and one of the most respected and public-spirited citizens of Newcastle. It is to his untiring exertions and foresight that Newcastle in a great measure owes its mercantile prosperity. He found the Tyne a shallow stream, up which vessels of the smallest draught could with difficulty sail. He left it so deepened that it is now one of the most navigable of rivers. The merit of this great achievement was publicly recognised by Mr. Gladstone, who in consequence had him dubbed knight—a distinction, however, which he did not care for. From the beginning to the end of his career he was a Radical reformer. The Cowens are a somewhat numerous family, and have been settled in and around Blaydon Burn for about three centuries. They came originally from Lindisfarne, or Holy Isle, of which the stock had been denizens from a remote antiquity. The

Cowens were among the first genuine English co-operators on record—co-operators in production as well as in distribution. Though Blaydon is a mere village, Mr. Holyoake, in his "History of Co-operation," declares that next to Rochdale it has the most remarkable store in England. It has grown from a house to a street. The library contains upwards of 1,500 volumes of new books. The profits for 1876 amounted



to £16,886. The society has an Education Fund of £400 per annum. When the Co-operative Congress met at Newcastle in 1873 Mr. Cowen, not then M.P., was elected president, and delivered an address, the remembrance of which still lives in co-operative circles.

Mr. Cowen's early education was received at a good local school, whence he proceeded to the University of Edinburgh, which then, by reason of the renown of its professors, enjoyed

something like European fame. Russell, Palmerston, Lansdowne, had been there before him. Christopher North still lectured, and Lord Macaulay represented the city in Parliament. With no professional object in view, young Cowen sought simply culture, and that he found to more purpose, perhaps, than it would have been possible for him to do elsewhere. He studied what subjects he pleased, preferring the time-honoured classics, became president of the University Debating Society, and entered heartily into the political and social life of the citizens. His chief extramural instructor was the Rev. Dr. John Ritchie—a really great man in a small community. Though a preacher, and a Scottish preacher too, he was above sophistry, an intrepid Radical, and a first-rate platform speaker. About this time also Mr. Cowen, while yet an Edinburgh student, made the acquaintance of Mazzini, who subsequently exercised over him an influence so remarkable. Young as he was Mr. Cowen had entered an indignant public protest against the infamous and, till it was proved, incredible violation of the illustrious exile's letters by Sir James Graham and the Post Office officials. Mazzini was interested in his youthful defender, thanked him by letter, and to Mr. Cowen were addressed the dying patriot's last written words.

On returning to Blaydon, Mr. Cowen engaged actively in his father's business of fire-proof brick and retort manufacture, the firm normally employing as many as a thousand men. At the Blaydon works there have been no strikes, for the very good reason that Mr. Cowen, though an employer of labour, has always been regarded as an intelligent exponent of trades union views—in short, as a trusted trades union leader. His support of the nine hours' movement was from first to last of a most decided character, and such as everywhere to evoke the warmest feelings of gratitude among workmen. His persistent efforts, too, to found, improve, and federate mechanics' institutes all over the populous Tyneside district ought not to be forgotten. For many years he personally discharged the duties of a teacher in one of these institutions, which owe so much of their success to his enthusiasm and talent as organizing secretary. Nor has Mr. Cowen been less active in the domain of pure politics, whether local or imperial. He is now President of the Northern Reform League—an organization which has been in existence in one form or another for more than twenty years. He was present at its inception, and acted as its first treasurer. In the Reform demonstrations of 1867 the League played an important part, calling out an array of supporters which the metropolis itself could hardly match. As a member of the Town Council Mr. Cowen on several occasions

declined the dignity of the mayoralty. This did not, however, prevent his brother councillors from getting a local Act of Parliament passed to enable them to make him an alderman when, by becoming a parliamentary representative, he had ceased to be a member of the municipal body.

To add to all these manifold activities, Mr. Cowen has for twenty years been the proprietor and political director of the *Newcastle Chronicle*, one of the most influential provincial journals in England, and certainly the most aggressively Radical. There is one other noticeable but well nigh forgotten publication with which the member for Newcastle was intimately connected which deserves to be recalled. In 1852 he purchased the small estate of Brantwood, Coniston, Lancashire, now the property of Mr. Ruskin, as a local habitation for the *English Republic*, which consisted of a series of Republican tracts in prose and verse, pitched in a very lofty key. They were issued for five or six years, and Mr. Cowen, if I mistake not, united in his own person the somewhat incongruous, but in his case, by no means incompatible functions of poet laureate and treasurer of the *Republic*, over which floated a beautiful tricolour of blue, white, and green, designed by the artist-editor, Mr. W. J. Linton. In those days Mr. Cowen was in fact, I presume, what he now is only *in theory*, a staunch Republican.*

Of Mr. Cowen's later public life nothing need be said, it being well known to everybody. He has shown himself more independent than the most independent political thinkers; but though some may doubt the tendency of his judgment, none can question the leanings of his sympathies.

[By a regrettable oversight, Sir Charles Dilke, whose portrait and character we gave last month, was stated to be President of the Board of Trade, instead of President of the Local Government Board.]

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

CHAPTER II.

OF PHYSIOLOGY IN GENERAL.

The anatomist is contented when he detects a distinction of parts which is constant and invariable. This he marks and proclaims to his scientific brethren, and they not unfrequently,

* For these biographical particulars we are indebted to the *Weekly Dispatch*.

in grateful memory of his service, immortalize his name, by affixing it to the thing he first saw and made known (pons *Varolii*, membrana *Schneideri*, &c.). But it so happens, that the name of the discoverer is applied to the object, not because of the importance and value of the discovery, but, on the contrary, because for the present it is the mere detection of a thing, without the least insight into its functions and uses. It is impossible to look upon merely a picture of the brain, whether we take a section of it vertically, or survey its different layers horizontally, without being struck with the nice complexity of its organization, and with our entire ignorance of the design and purposes of that organization. This is more strikingly the case in examining the brain than in contemplating the other parts of the human frame. The ear and the eye also are subtly formed, but the principles of acoustics and vision are become objects of science—demonstrable science—which furnish us with a clue in examining the organs of sight and hearing. The organs of digestion, nutrition, &c., are also more simple, and have a reference to less complicated processes. It is in the brain particularly that the physiologist follows the anatomist humbly at a distance, and for want of certain data and experience, is forced to indulge in general observation and vague analogy. At the same time, all who are really interested in the progress of science, and who make liberal allowance for the imperfection of knowledge, gratefully receive the facts which the anatomist makes known, even when there is no prospect of an immediately useful application of them. And they also indulgently listen to the speculations of the theoretical physiologist, in the conviction that it is only by the freest use of speculating and thinking powers, that the understanding can be disciplined to adjust and appreciate the facts brought before it. In the formation of science, the observation of individual fact, and the theory of general notions, setting out from opposite quarters, tend to the same point; and it is by their union that science itself is established.

Thus, for instance, in respect to the brain and its functions, which form the object of this work, it is in general universally understood to be the organ of thinking. But thinking is only a general term, including a vast variety of intellectual phenomena, and the brain is, as we have seen, a very complicated organ. Shall we then rest contented with the general assertion that the brain is the organ of mind? or shall we not rather, looking more narrowly into the structure of the brain, consider, apart, in their relation to mind, those of its parts which are anatomically shown to be distinct, in the same manner as the brain, considered as one simple substance, has formerly been

contemplated? We shall perhaps find that this more minute research is but a reasonable pursuit of the inquiry suggested by the first general observation. It is this which constitutes the subject of the following pages. Dr. Gall professes to have made this inquiry, and to have found that we ought not to content ourselves with considering the brain as the organ of thought, but as a congeries of distinct organs, the existence of which alone renders that great variety and diversity of talents possible, which distinguish the various individuals of the same species hardly less strikingly from each other, than man himself is distinguished from every other species of beings we know.

But before we enter into this inquiry it may be proper to notice an opinion that has of late years become popular, concerning the causes of that infinite diversity of intellectual power and moral character, which prevail in the world, which would, if established, render an examination into the physical organization of man frivolous and useless. Helvetius has given currency to the notion, that men are born not only without character, but also absolutely indifferent to all character, without any tendency or disposition of any kind whatever. We all come into the world formed and disposed alike, and are purely the creatures of the circumstances in which we are placed. All the powers of the mind which have adorned but a few of our species, might (in spite of anything contained in the first frame and organization of the individual) have been the lot of every one of the thousands who daily come into and go out of the world, without leaving any other traces behind them, than in their progeny. This notion has been adopted by certain speculative men, from its imagined connection with the dogmata of materialism* and philosophical necessity: and in this country in particular, from its harmonising with the Hartleyan theory of association. But this notion could never gain credit with men in general; and for a reason stronger than all reasoning: We feel within us so decided a capacity for certain pursuits, and so utter a disability to follow others, that when we are told it might have been otherwise had we been otherwise placed in the world, the argument makes little impression; and we think we have

* It deserves remark, that the doctrine of Helvetius, though in fact it has been patronized by materialists, is much more easily reconcilable with the immaterial hypotheses. For we are more accustomed to think the soul, the immaterial substance, to be simple and undividable, than matter, which we know only as a compound substance. And one would have imagined that materialists would have rather attributed to an original diversity of material organization, the actual varieties in the character of men. This observation was made to me by a German friend; I am not aware that it has occurred to any of our English writers.

done enough by asking, How can you tell that? And in truth, the objection implied in the question is well founded. It is in vain that Helvetius tells stories upon stories (and they in fact alone have made his book popular) of a boy who used to be left alone in a room with a great clock, and afterwards became a great mechanic, &c., &c. The celebrated reply of Themistocles to his envious adversary, who ascribed his greatness alone to his being an Athenian, is a sufficient answer to all such tales. "I should not have been great if I had not been an Athenian, nor would you, were you an Athenian, have become Themistocles." The argument of Helvetius proves nothing, and avails nothing, against the consciousness of unequal powers, added to the daily observation of the early display of decided talents. Mozart, when in his fourth year, was already an excellent performer, as well as an accurate judge of music. Besides, Helvetius qualifies his assertion by a *bien organisé* (well organized), and this qualification renders the whole doctrine frivolous and insignificant. For why should we suppose this organization to be susceptible of no other modification than a *well*, why not a *very well*, *ill*, *very ill*, &c. This opinion has been adopted by persons very averse from speculating metaphysically concerning man. Johnson, for instance (whom I quote here because he was *not* a man of science, though of great shrewdness in observation), considered talents, or genius, as he chose to call them, as a thing that, when once existing, might be directed any way. Newton, he thought, might have been a Shakespeare. For, said he, a man who can run fifty miles to the south, can run fifty miles to the north. The fallacy of the simile needs no detection.

But though the notion of Helvetius is offensive to our best feelings, it will be objected that the opposite doctrine which Gall lays down, and which is to be developed in these sheets, is not less repulsive. That consciousness of moral liberty which, in spite of the metaphysician's attacks, attends us perpetually, and which seems to be essential to our most important moral principles (it will be said), is equally hostile to the theories of Gall and Helvetius. The one represents us as enslaved by the things which surround us, the other as determined by the fixed dispositions and tendencies of our frame.

The genuine student of nature will never be deterred from his pursuit by any objection drawn from either metaphysics or morals; he is sensible that the field of research which lies open before him merits his attention; and having faith in the ultimate harmony of the universe, he is not anxious to remove apparent doubts or difficulties. This answer is sufficient for the better kind, but not for the greater number of inquirers.

It is incumbent on him who is introducing a new object of attention, to remove all obstacles to its being impartially received and attended to. There is one plain answer to the objections taken from the notion of the freedom of the human will: That the *idea of ORGAN is that of an instrument by which a thing may be done, not that of an impulse which necessitates the action.* Organs of certain powers and capacities do not suppose the exercise of such power; hence there is still room left for the introduction of another principle if there be a necessity and a reason for it. It may be further said, that Dr. Gall's Organic Theory does not introduce a greater necessity than the popular opinion supposes: the undefined fact is already admitted, in the notion that the brain is the organ of thought. Gall does but go into the detail, and shows how that in fact exists which the other opinion only supposes. Equally unfounded would be the objection to Gall's theory, as favouring materialism. Gall very judiciously declines all metaphysical researches: it is indifferent to him, as it is to all whose object is the sensible world within the confined limits of external nature, what our opinion may be as to the metaphysical properties of man, the nature and relations of matter and spirit. These he holds to be irrelevant inquiries. It is enough for him, that the life of man is dependent on his sensible formation, and that there is a connection (though mystical and incomprehensible) between his intellectual and sensible qualities. He does not determine that the one is the cause of the other, but contents himself with observing as closely as he can, the concomitancy of the effect. He is employed in analysing the dust of the earth of which man is formed, not the breath of life which was breathed into his nostrils.

It is most obvious that if a particular doctrine concerning the physical nature of man is not to be invalidated by general theories drawn from metaphysics and morals, neither can any such doctrine arise from such theories. Hence Gall has been very anxious to show how his opinions have always been grounded in particular observations; but whether the analogies by which he has generalized his particular observations have been drawn with sufficient caution, may be fairly doubted.

It is what the child does under wise direction that educates him.
—John Swett.

GEORGE COMBE.

TRAVELS ABROAD—VIEWS ON EDUCATION—COMBE
AND COBDEN.

The domestic life of Combe was very happy; he and his wife were well adapted to each other, both in regard to organization and culture, and his domestic affairs were so arranged as to work with the least possible friction. As to the position of phrenology, he wrote to a friend in April, 1834: "Phrenology advances here rapidly in the humbler grades of the middle rank. The philosophers of the old school and the religious combine to denounce it in the higher, and it scarcely gains ground amongst them, except with the young. My position in this city is curious. I am constantly meeting the professors and the *litterati* in society, and several of them visit me; yet phrenology is as carefully avoided by one and all of them in conversation in my presence as if it were the subject of a monomaniac's craze. The medical students are rapidly coming round to study it."

In July, 1834, Combe and his wife went on a continental tour, which was the first of a long series of annual excursions, made for the purpose of enjoyment, and of observation of the religious, educational, and criminal conditions of other countries. Some of his phrenological observations on this journey are highly interesting. "In Holland (he wrote) the coronal region and the organs of the domestic affections are large, and one sees everywhere cleanliness, order, and propriety. . . One sees the women and children everywhere in company with the men—in their boats on the rivers and canals, in the streets; and on Sundays family groups abound in all the fine walks. In ascending the Rhine we find a race with large propensities, good intellectual organs, but a flat and shallow coronal region. This is the development common at Cologne, and there dirt, poverty, and disorder appear conspicuous. The expression of countenance is harsh and cold; whereas the Dutch looked bland and cheerful. At Frankfort-on-the-Maine a better tribe appears, with higher physical comforts. But the most striking example of the connection between the development of brain and physical condition presented itself at Bühl in Baden, on the confines of the Black Forest. On a Sunday we saw a religious procession composed of at least 200 young women, with head uncovered, and the hair all smooth down off the coronal and intellectual regions, and knotted up behind; of 30 or 40

matrons ; and 150 of all ages—all bareheaded, and moving very slowly. We placed ourselves a little above them, and saw the whole pass by. There was a great deficiency in the moral organs generally, except Veneration, which stood higher than the others ; the intellect was only moderate, and the propensities large. The head rose high above the ear, but very little above Cautiousness and Reflection. The people looked extremely ill, there was scarcely a well-made man or handsome woman among them ; there was a poor, wretched expression in their countenances ; many were deformed ; and their houses and dresses all bespoke a low mental condition. They appeared to be of another race when compared with the Dutch. On entering Switzerland we have observed the coronal region increasing, and we are among a cleaner, more intelligent, and more moral people. These facts, taken in connection with the deficient brain of the native Irish which I have seen, force on me the conviction that human happiness and the development and activity of the moral organs are inseparably connected. We are sadly in the dark regarding the causes of the differences. At Heidelberg, I was told by Professor Arnold that he had read the German translation of my 'System,' and was convinced of the truth of the three great regions—animal, moral, and intellectual—although he could not yet distinguish the particular organs. He had a cast, and was studying. He had lent the book to the Superintendent of the Lunatic Asylum, who had reported several cases to him in exact accordance with the remarks in my book."

The excursion embraced the most interesting parts of Germany and Switzerland, and Combe was able to write of it :—"We have not had a bad day, nor any sinister accident or incident, and have enjoyed ourselves extremely, for all which we offer to Providence the thanksgiving of grateful hearts." Referring to his wife he wrote :—"We have been thrown constantly together day and night since we left home, and often in circumstances a little trying to the temper, and I return with an increased impression of her excellent qualities and an unabated affection."

Combe took great interest in political matters, as already stated, and he gradually came to be regarded as a man whose views were worthy of consideration. When Mr. Thomas Wyse, M.P., was about to introduce to Parliament his Irish Education Bill (1835), he sought Combe's advice as to the best means of improving the existing system of education. A parliamentary committee was appointed to inquire into the subject, and Mr. Simpson, who was imbued with Combe's

theories, was before the Committee for seven days. Writing to Mr. Wyse, Combe said :—

“ Mr. Simpson is in possession so fully of all detailed suggestions which I could offer, that I have really no means left of rendering you any efficient aid.

“ The only point on which I need at all trouble you with remarks is one which is perhaps more philosophical than directly practical ; it is this : The grand obstacle to a national system of education comes from the side of religion. It is said that no sound education can be given which is not based on religion ; and when we ask for religion to be used on that basis, every sect presents us with its own peculiar dogmas—not those precepts and principles which it holds in common with all Christians, but those which distinguish it from all other denominations of believers,—and hence the impossibility of rendering any religious education national. I have reflected on the course of this proceeding, and it appears to me to resolve itself into an entire ignorance of the mental constitution of man, and in particular into a complete scepticism in regard to his possessing native, moral, and religious sentiments. In books of moral philosophy, and in works on divinity, some authors deny conscience as a native principle ; others deny the tendency to religion, and others deny benevolence as instincts of human nature. They recognise self-love and intellect as the only two principles that can be safely relied on as a basis for education. Now, they produce the Bible, and say that in this book which God has inspired His chosen servants to write, He commands you to fear Him, to love your neighbour, and to do justly, and that if you fail to obey, He will punish you in eternal flames ; while if you do as He commands, He will reward you with eternal felicity. According to their view, this comes home at once to the only two principles of the human mind which we know for certain to exist ; and if you omit this method of implanting moral and religious principles, you have no security whatever that the child shall not grow up utterly blind to the distinctions between right and wrong, and reckless of all restraints on the indulgence of his passion. Their conclusions would be irresistible if their premises were sound ; and the real difficulty which liberal men experience in endeavouring to found education on a right basis lies in the different views which each opponent in his own mind entertains of human nature, without reducing his objections to the form of a proposition reaching back to this point. A difference of opinion on this subject is actually entertained, is implied in all the arguments used, and influences every

conclusion arrived at, although almost nobody states it, or goes far enough back in his analysis of the subject to discover at what point the difference between him and his opponents commences. To apply this to your object, I would ask the witnesses what faculties they conceive to be inherent in the human mind, and you will bring out the fact of a total lack of opinion, or at least of consistent opinion on this subject; and the source of vast differences as to practical details will then become apparent. No man capable of reasoning, who admits sentiments of benevolence, veneration, and justice to be constituent elements of mind, as certainly as self-love and intellect, can consistently oppose the cultivation of these principles by means in which Christians, Mahometans, and Hindoos might all join with benefit; in respect that piety to God, and justice and kindness to men, are virtues all the world over; and no man who admits these principles to be inherent could say that a child who had received such instruction to an adequate extent was sent into the world without morals or religion, and left a prey to every passion and seductive influence of vice. If a witness denied the existence of original moral and religious sentiments as instincts in man, he might be completely stultified in all his conclusions; because neither revelation nor any other instruction could in that case be understood or take effect, any more than music could be taught to a man who had no natural perception of melody."

Combe's views on education and subjects kindred thereto were listened to with respect by all who knew or heard him. He had become a power, and from all parts of the kingdom he received invitations to lecture. During this year (1835), however, he lectured but little. Sir George Mackenzie was so impressed by the influence of Combe's labours that he proposed a public demonstration in favour of phrenology. Replying to this proposal from Newcastle-on-Tyne, where he was lecturing (Oct. 15), Combe writes:—

"I do not think that any general public demonstration in favour of phrenology would succeed in Edinburgh this winter, because we have nobody to make it. . . My idea is that monthly meetings of the Phrenological Society, open to the public as they are in Dublin, and devoted to popular elucidations of the science for the public, might succeed and do good. In Dublin they announce their meetings in the newspapers, and collect great crowds. This keeps the subject alive. I think that there is a great deal of practical wisdom in your proposal of a triennial celebration of Drs. Gall and

Spurzheim, open to all phrenologists, and I am ready to second this with all my might."

During the winter of 1835-6 he delivered his course of lectures on moral philosophy in the large Waterloo Room, Edinburgh, to an audience of about 500. But he hesitated to publish the lectures in a book, although they were well received, and were fully reported in the *Edinburgh Chronicle*. In April he delivered a highly successful course of lectures in Glasgow, and in October an equally successful course at Aberdeen.

Amongst the numerous invitations to lecture Combe received at this time was one from Richard Cobden, which led to a life-long friendship. He had read Cobden's "Russia," and found it replete with the same principles which he had endeavoured to expound in his "Constitution of Man." Mr. Cobden explained that in Manchester the Phrenological Society was in a languishing condition, brought about, he thought, by the timidity of the leading medical men to openly avow themselves disciples of Gall and Spurzheim. "But," he added, "phrenology is rapidly disenthraling itself from that cold obstruction of ridicule and obloquy which it has, in common with every other reform and improvement, had to contend against; and probably the mind of the community of Manchester presents at this moment as fine a field in which to sow the seeds of instruction, by means of a course of lectures by the author of the 'Constitution of Man,' as could be found anywhere in the world." Mr. Cobden invited Mr. and Mrs. Combe to be his guests during the visit to Manchester. The lectures were arranged to take place in 1837. In one of his letters to Cobden, Combe spoke of his qualities as a lecturer. "I was not educated," he said, "for lecturing or public speaking, and I have a very broad Scotch accent, with a total absence of grace and eloquence. My qualities are clearness (when my dialect is understood), force of reasoning, and earnestness; and I have hitherto found them overcome all the disadvantages of my defects (of which I am painfully sensible), and render my courses, on the whole, successful."

Meanwhile Combe delivered a course of lectures in Edinburgh in Dr. Mackintosh's class-room, Argyle Square, open to students and the male public. In preparing a second edition of his "Constitution" in (1835) he made many additions, and devoted a chapter to the subject of the relation between science and religion, which was subsequently developed in a separate book. The first edition of the work had sold slowly; but the truths which it expressed had taken deep root in

many places ; and from March, 1835, to April, 1836, the sale exceeded 19,000 copies. One of the signs of its influence was the publication in London of a book entitled "The Cost of being Happy," which was a bare-faced plagiarism of the "Constitution of Man," whole pages of the original being given without acknowledgment. In another work his "Lectures on Popular Education" were paraphrased ; showing that his views were making headway.

In 1836, Dr. Andrew Combe was appointed resident physician to Leopold I., King of the Belgians, and proceeded to Brussels to fulfil the duties of his post ; but owing to the climate being unsuitable to his delicate constitution he was obliged to resign the position in a few months. He was, however, retained as consulting physician, and made several subsequent visits to Brussels in that capacity and by invitation of the king. During his stay at the Belgian Court, Prince Albert of Saxe-Coburg (the late Prince Consort) was under his care, and in various ways manifested appreciation of his skill. The appointment afforded especial gratification to George Combe, inasmuch as it indicated that phrenology was not a barrier to the highest honours a professional man could attain.

(To be continued.)

MISS CLARA BARTON.

The organization of this lady is quite marked ; there are many strong and distinct points in her character. She also has a physiological constitution favouring the most vigorous development of her mind. When I first saw her she was twelve years of age, and was then one of the most healthy and robust girls I ever saw. Her head at that time was quite elliptical and fully developed in every part ; her body also was very rotund, and she had an ample amount of good flesh and blood. I next saw her in her fully developed womanhood after she had gone through the wars in America, Germany, and France. In maturity she had almost the highest degree of physical strength and power of endurance, and was in every way qualified for labour and responsibility.

Her phrenological developments in natural life are the following. She has very great firmness, perseverance, and tenacity of mind ; whatever she takes hold of to do she is sure to accomplish if she lives. Secondly, she has great energy, courage, force, and power of endurance ; she never shrinks

from the hardest task, if it is her duty to perform it. Thirdly, she has very strong affections, having all the "loves" fully, even largely developed; very few individuals are so devoted to their friends or any cause to which they may be attached, as she is. She is so thoroughly attached to friends and to humanity, and values life and purity of conduct so much, that she is prepared to make the greatest amount of sacrifice, if necessary, for the welfare of others, more especially to reclaim wanderers from the path of virtue. She is particularly mindful of all favours bestowed on her by friends. She is passionately fond of children, very strongly attached to home and country, has unbounded patience and application, and possesses more than average sensitiveness as to her character and position in society. She is modest almost to a fault; sense of duty only puts her forward and makes her appear bold. Self-Esteem is quite full in development, and gives a high degree of self-respect; Conscientiousness is large and active, and has quite a controlling influence on her life and conduct; and she has a due degree of restraining power through the influence of Secretiveness, Cautiousness, and Conscientiousness, rendering her circumspect, uniform, and consistent in conduct. All the moral brain is strongly represented. Veneration has a modifying, while Benevolence has a controlling, influence, and gives her a philanthropy, sympathy, and kindness that is restrained only by her lack of means and strength. She has large Constructiveness and Ideality, giving versatility of talent and fruitful contrivance in doing things, joined to an unusual degree of taste and refinement of feeling. Her intellectual powers are all available; she is remarkable for her ability to acquire knowledge, is passionately fond of details, and delights to study the application of every truth and principle. Order and Calculation are specially large, disposing her to be very accurate in everything she does, even to her handwriting; and to be scrupulously correct in her accounts. She is punctual in all her engagements, and knows how to use every minute of her time, for she cannot be idle. Her memory of events is so good that she can carry a great amount of varied business in her mind. She is very successful in comparing one thing and truth with another, and in applying principles. She is very intuitive and quick to "sense" the spirit of others, and is prepared at once to enter into sympathy with those whom she likes. She has fair powers of speech, but is not loquacious; has more to say than she has of the disposition to talk. She would have made a good author, financier, teacher, physician, or missionary. There are few, if any, special defects in her character, and if she manifests

much weakness in any mental power, it arises more from the want of proper encouragement in the development of that power than from positive weakness. Few at her age have done so much, and done that much so well, as she has.

To students of phrenology the following additional particulars will be interesting. Her temperament is a good balance of the Vital, Motive, and Mental. All the organs of the social nature are large or very large (Conjugal) except



Amativeness, which is full ; Vitativeness is full, Continuity and Combativeness are large ; Destructiveness is between full and large ; Alimentiveness, Acquisitiveness, and Secretiveness are full or average ; Cautiousness and Self-Esteem from full to large ; Approbativeness, Firmness, Conscientiousness, and Imitation from large to very large ; Hope, Spirituality, Veneration, and Constructiveness full ; Benevolence, Ideality, Sublimity, Individuality, Form, Size, Weight, Locality, Comparison, Human Nature, and Agreeableness large ; Mirthfulness, Language, and Causality from full to large ; Colour Eventuality, and Time full ; while Order is very large and Tune average. Add quality of organization, health and activity of a very high order, and you have the elements of very strong and very fine character.

ON THE STUDY OF WORDS.

[*Second Article.*]

BY THE EDITOR.

Our lack of knowledge of Saxon, and perhaps Mæso-Gothic, has been largely the cause of much stunting of our language, and a great deal of resulting poverty of expression, which does not naturally belong to it. I refer here more particularly to our power of forming compound words. Take an instance: we have the word "landscape;" it is made up of the words "land" and "scape," that is "shape." It comes from the Saxon word *scapan*, to shape. Thus "landscape," we see, merely means the "shape" which the land assumes in a particular place. Some time ago, being in want of a word, I used the compound "sky-scape." I was told there was no such word; but I referred to the Saxon derivation, and maintained the expression was as legitimate as "landscape." So we might have "mountain-scape," "water-scape," "cloud-scape," and so on.

As I have said before, language is a living thing, and the result of stunting and confining it acts in a reflex manner on thought. Without, therefore, wishing the idea to be taken in its broadest sense, I would say that no study tends so much to the expansion of thought as that of language, that is of words. I would not necessarily be understood to say, Study languages; but I would say, Study your own language, and study it deeply and thoroughly. In doing so you would have to study our old literature, a storehouse inexhaustibly rich both for pleasure and profit. You do not need anything further for it than that. By a careful study of our English literature you may see how language grows, and how it decays, how it becomes corrupted in parts, and how it buds into fresh life in other directions. I would not say, Do not study other languages if you have time and the inclination; for the more you study, and study thoroughly, the broader becomes your views; just as the higher you ascend a mountain, the wider becomes your vision; and you will begin to observe how in the evolutions of language the positions, occupations, surroundings, and everything connected with people, plays a part. You will notice how, if a people are pastoral and agricultural, a large proportion of its words or thought symbols, are taken from that sphere of life. If they are a seafaring people, nautical terms and usages enter largely into their every-day vocabulary. By this I do not mean—as is obvious

—that it is necessary to have names for the objects and ideas connected with pastoral or nautical life ; but that those words and names used to signify certain ideas or things are afterwards applied, to the enrichment of the language, to other ideas and things. Take, for instance, our word “navvy.” It is the word used to designate men who work on the construction of railroads, etc. It is a corruption of the word “navigator.” But how, you will ask, should the word “navigator” come to be applied to something that appears to have nothing whatever to do with navigation. There seems to be the widest difference in the world between *navis*, a ship, and *navvy*, an English digger and delver. But the explanation is not, I think, far to seek ; for the appellation *navvy* was first applied to the men who constructed our canals ; and as that system of water-ways was to enable vessels to be *navigated* to different parts of the country, we get a glimpse of the most probable derivation.

Many other examples might be given : take, for instance, the verb “sail.” In how many ways it is applied in senses that have no connection with a ship or the sea. We speak of a person *sailing* along, of clouds *sailing* through the sky, and so on. The instances of words transferred from pastoral or agricultural life and made to signify other ideas are so numerous as scarcely to need mention. Flock, fold, pastor, shepherd, herd, sow, reap, harvest, garner, plough, etc., are all instances in point. Similar examples of the appropriation of words to other than their primitive uses may be found in almost every department of life. The language of the counting-house is transferred to the bar, and from the bar to the pulpit. The language of art and of science—at first purely technical—is gradually adopted by the popular tongue, ever eager for new words fresh and fragrant with meaning, and made to do service in a wider and more general sense.

A somewhat striking instance of this tendency came before my notice the other day ; which, though not in English, sufficiently explains my meaning. The instrument with which the engraver works in steel or copper is called a *burin*. A writer in a French paper, I think the *Figaro*, transformed this noun into a verb, and used it in a very forcible way to indicate the manner in which a certain impression was made upon the mind : it was *buriné*, burined in.

There is ever a tendency or desire—unconscious it may be—to import fresh material, or to make new applications of old material in a language. It is exemplified in the use of slang. We frown upon it, and very properly ; and yet it is only the excess and abuse of a tendency which is wholly legi-

timiate, and of the highest value, in the history of speech. It seeks relief from the often oppressive conventionality, even insipidity, of words worn out by the use of persons who have put neither knowledge nor feeling into them, and which seem to have become incapable of expressing anything that is real. In the exuberance of mental activity, and the natural delight of language-making, slang is a necessary evil ; and there are grades and uses of slang whose charm no one need be ashamed to feel and confess ; it is like reading a narrative in a series of pictures, instead of in words. I need not instance the apt use of certain slang words by some of our best writers ; Thackeray, for instance, one of the few of our modern writers who may be said to have had a style of his own. When once a slang word has thus been taken up, and given a kind of patent of respectability, it often takes its place as a permanent addition to the language, and after a time loses its force. Many examples might be given of words which a generation ago, or less, were considered slangy, but which we now use without giving a thought to their paternity. The word "pluck" is an instance in point ; so is "snob" ; so is "cad" ; so are "slum," "rookery," "swell," "fast," and a thousand others, some not very elegant, but all in their way forcible, and many of them destined, in their way, to enrich the language.

The same tendency—and I may add the same delight, for there is a positive delight in these chance coinages—is manifested in giving nicknames. How many now highly honourable names were originally but nicknames. Take the name Quaker or Shaker ; take Roundhead ; take the words Whig and Tory, Radical, and a host of others. It would be a curious inquiry to try to find out how many of our expressive words of to-day were originally of the chance-coinage known as slang. I am inclined to think a very large proportion would be found to have had such an origin.

These are some of the ways in which our language may be enriched ; and any one at all acquainted with our literature must have been struck time and time again with the wealth which the English language has thus gained. It has also been enriched by borrowing from other languages ; but of this form of augmentation I do not propose to say much.

It has borrowed very largely ; but notwithstanding the many sources from which the English language has drawn additions, it is still essentially a Teutonic speech, and not a romance one, like the French and Italian. A vast number of French and Latin words are mixed up with our old English ; but these words came in at a much later time ; they are at best but strangers, many of which we could do just as well

without. Indeed the result of the introduction of many of them has been to displace many older and more expressive words. Take, for instance, the word *wanhope*, the Anglo-Saxon synonym for "despair." It is a compound of "wan" and "hope." The first half of the compound we still retain in the words "wan" and "wane." Another word of this class is *dearworth*, beloved. Another is *witwanton*, a synonym for which we do not seem to possess, but the meaning of which is sufficiently evident when we consider the signification of the two words of which it is compounded, "wit" and "wanton," really a wantonness of wit. Fuller warns men that they should not *witwanton* with God. "Rootfast" and "rootfastness"—cognate words with "steadfast"—are words we could ill afford to lose. To "afterthink," to repent, is another old English word all but lost to our every-day English; it is still, however, used in Lancashire, where amongst the uncultured people many fine old words are still in daily use, but, I am afraid, soon destined to die out. One such, it may be remembered, was rescued from its state of obsolescence and, as it were, given a place in our cultured language by Lord Derby at the time of the Cotton Famine in Lancashire, when in a speech in Parliament he spoke of the destitute factory operatives as "clemming" for want of food. To "clem" means to die of hunger. Our various dialects are rich in words that, no longer used in our literary language, will probably soon die out, to the great loss of the common tongue.

I might go on and speak of words, which even in our day, spring into existence as language originally for the most part sprang into existence—onomatopotically, to use a big, awkward word. I refer to such words as whiz, pop, crack, bang, whirl, fiz, flop, etc. But I must not lengthen this already too long essay. I will just say in conclusion that it is not easy to over-estimate the advantages won by the mind in the obtaining of a language. Its confused impressions are reduced to order, brought under the distinct review of consciousness, and brought within the reach of reflection. But even apart from this, in reading old authors, we are constantly liable to loss or misunderstanding, often being satisfied with a mere surface comprehension of that which has a profound meaning, or deluding ourselves with a belief that we understand where the real sense escapes us.

WHAT men want is not talent, it is purpose; in other words, not the power to achieve, but will to labour. I believe that labour judiciously and continuously applied, becomes genius.—*Lytton*.

HEALTH OF CORSETED WOMEN.*

BY DR. D. LEWIS.

Many physicians engaged in general practice have been asked what proportion of their practice comes of displacement of the pelvic viscera. Their average testimony is that more than half of their professional business comes of this one malady.

A letter just received from the most able specialist in the treatment of diseases of women known to the writer (a professor in a prominent medical college) contains the following language: "I am sure, without being able to demonstrate it, that 90 per cent. of the so-called female weaknesses have their origin in corsets and heavy skirts. They not only depress the pelvic organs by their pressure and weight, but weaken all of their normal efforts." A number of experienced practitioners in this department of medicine, hearing of the preparation of this paper, have written letters expressing the same decided opinion.

But may not a corset be worn so loose as to do no harm? If by a corset, a machine with steel, whalebones, or other stiffenings be meant, the answer is "No!" The corset is hard and stiff, while that portion of the body which it surrounds is particularly soft and flexible. If the wearer could always stand erect, with the corset so loose as not to touch her, no harm would be done. But she must sometimes sit, when the parts under the corset are greatly enlarged. Bending forward, as in sewing or reading, she leans against the upper ends of the whalebones, and then the pressure against the upper ends is returned against the abdomen at the lower end. If the wearer will put her hand under the lower end of her corset while she leans forward against the upper end, she will be surprised at the pressure. This pressure upon the abdomen, during all the long hours of sitting, does serious mischief. In one word, it may be added that, with every bending of the body, even the very loose corset is brought in contact with yielding parts. The floating ribs—that masterpiece of the human mechanism—and those soft parts of the person covered by the corset, cannot perform the undulating and vital movements incident to respiration and digestion, even under a very loose corset. Then what must we say of a corset which is not loose?

The corset does more than squeeze the waist. After forcing a considerable part of what belongs within the waist down-

* From the *North American Review*.

ward into a lower part of the abdomen, to prevent an unseemly protuberance, the corset is so contrived as to spread over all that lower part, force it down, and, with a firm layer of steel or whalebone, hold it there. This presses the abdominal viscera down upon the organs in the pelvis. Then, to end this tragedy with a farce, people put on serious faces, and wonder why women suffer from prolapsus uteri.

A numerous and busy class of medical specialists are devoted to the treatment of malpositions of the organs in the lower part of woman's abdomen. These malpositions are, directly and indirectly, the source of a large part of her ill-health and sufferings. Is it unreasonable to say that a pressure about the middle of the body, which reduces the waist from 3 to 15 in., must push what is within the waist downward, and must inevitably produce those malpositions of the organs at the bottom? Can a sane woman imagine any other result?

A GIRL WHO HAS INDULGED IN TIGHT LACING SHOULD NOT MARRY. She may be a very devoted wife, but her husband will secretly regret his marriage. Physicians of experience know what is meant, while thousands of husbands will not only know, but deeply feel the meaning of this hint.

One is led to say that the microscopic girls that swarm about our schools and chatter in our streets are the curiosities of what we call "high civilization."* They are found only among the lacing peoples. Wherever women give free play to their lungs and stomachs, they grow as large, or nearly as large, as men. This "high civilization" is curious. Its avowed aim is a nobler manhood and womanhood. But while we are so proud of our telegraphs and railroads, and grand inventions, and magnificent improvements, and large corn-crops, that we run our printing-presses all night to proclaim our glory to the rising sun, our doctors, standing in the midst of a nation of men sucking tobacco, caution a nation of corseted women to go slow and lie flat on their backs three months every year.

To think we are able is almost to be so; to determine upon attainment is frequently attainment itself. Thus earnest resolution has often seemed to have about it almost a savour of omnipotence.—*Samuel Smiles.*

* Although Dr. Lewis's closing words are addressed to Americans, they are equally applicable here.

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER I.

THE GOOD-PREACHER HOUSE.

Kaiserstadt, the scene of the following story, is beautifully situated in the very heart of Germany. It occupies the centre of a broad valley, and is within sight of blue pine-clad mountains on three sides; some of the foot-hills are so near, especially to the south, that on bright summer days the larger birds that make their home amid their woods and rocky fastnesses may be seen wheeling above the rounded summits, like happy dreams over the wearisome hum-drum of life. Beneath the towers and lofty buildings of the city a broad river rolls its green, pellucid waters: they are gathered together a few miles above the city from innumerable streams, and after travelling still many a league, with here and there an accession of strength, join hands with Old Father Rhine and together bear many a load to the Northern Sea.

Nothing can be prettier than to approach Kaiserstadt from the mountains. You look down upon it from amid green vineyards, its many towers—chief of them, and towering high above the rest, that of the ancient cathedral—gleaming and glittering maybe in the setting sun; its snow-white houses glowing with a roseate hue; its gardens, round and about, seeming like a fair emerald setting of the whole; while as a fore-ground the river stretches east and west, like a silken opalescent ribbon, glinting and gleaming as it undulates in the wind. Two bridges cross the stream, looking like dark threads, with some of Sir John Lubbock's ants running to and fro upon them. The lower one is suspended like a spider's web; the other is a substantial stone structure of mediæval fashion and workmanship. Tradition has it that the Evil One had a hand in the building of it, because of the life it cost,—and what has he not a hand in by the same token?—and so by some it is called the Devil's Bridge, by others the Steinbrücke (or Stone Bridge). This bridge unites Kaiserstadt with its extra-riverian suburb of Weinberg, and with the south at large. It is a favourite evening stroll of the placid citizens across the Steinbrücke, through the quiet village of Weinberg, and so among its pleasant garden grounds and vineyards; and yet but few, if they happen to return after dusk, fail to experience a feeling of awe as they recross the old bridge, and hear the sobbing and swirling of the swift waters past the massive buttresses. They rush by with something like a cry; and so great is their velocity that, according to the common report, no one who ever went over the parapet, either by accident or design, lived to tell of his sensations.

Kaiserstadt itself is contained within an irregular circle, flattened towards the river. Formerly it was strongly walled; but walls and moat have long since disappeared (or for the most part), and have given place to pleasant gardens and promenades, where children disport themselves from morning till night, and grave citizens take their matutinal air-bath or evening chat. A few old watch-towers have been preserved for picturesqueness' sake, and still lend a mediæval air to the landscape, which is greatly enhanced by the quaint costumes of the peasants who come from the mountain villages to earn their daily bread and beer. The stolid City Fathers, oblivious of the principles of political economy, have refrained from selling these fortification sites, and have devoted them to the use of the public for ever; planting them with trees and shrubs, and here and there choice flowers, supplying them with seats for the aged and sand-heaps for the young, and taking care even that there shall be plenty of birds to sing to them all the year round; thinking, perhaps, that, by so doing, they were preserving them for their former uses—the health and well-being of the good towns-folk.

The city is intersected by two chief arteries, debouching at four several gates, beyond and around which have grown up charming green suburbs where white houses nestle amid wildernesses of greenery, in which they seem half lost, and wherein life, looked at from without, seems to flow on to a calm idyllic measure, untroubled by anything more grievous than the coming and going of the seasons. Were it not that one may hear from time to time the scream of a railway-whistle, and see the last vertebrate of modern evolution wriggling its way through the scenery of this post quaternary epoch, it would be easy enough to imagine one's-self living in mediæval times.

But if without the gates the evidences of nineteenth-century progress rapidly dispel such an illusion, it is different within. Once inside the gates, and you may feed illusion to the top of your bent. In two or three of the principal streets there may be a large percentage of fashionable nineteenth-century male and female costumes; but this simply strikes you as an anachronism amid so much that is old and strange. For the most part, the good burghers and their wives and daughters have an old-world air both in regard to the cut and to the material of their garments, as well as in regard to their habits and manners. The architecture of their houses, too, the build of their vehicles, and all the paraphernalia of their daily life is in strict keeping with their other peculiarities. The streets are, for the most part, narrow and tortuous; they are also rather dark; for each successive storey (and they generally range from four to six) has a habit of projecting beyond its neighbour; so that the topmost ones have the appearance of shaking hands across the street, and, as a result, almost shut out the light of day.

One notices, too, some curious, old-world features in these narrow streets and lanes, the fine, broad-fronted, sculptured, and chastely adorned house of the grandee elbowed in by the plain gables of the

simple burgher. There were fine traits about those old times. Now the grandee moves out into the country, and surrounds himself with a park and a high rail-fence; and instead of sympathizing with his poorer fellow-mortal, he talks of his thriftlessness and his ingratitude; while the latter only sees in his "betters" pretentiousness and luxurious living; and hence we have that distinctive development of modern times—the war of class against class. They were wiser on this score in the old days; for in living nearer together rich and poor learned to sympathize more one with another, and to bear more patiently with one another's faults; besides, they were enabled to see each other's virtues, which they cannot do at a distance. It is one of the most striking things in morals, that though you may see people's faults a long way off, you have to come very near to see their virtues: nay, even a virtue, looked at from a certain distance, is often transformed into its opposite, just as distant objects, observed through a glass, appear upside down. With this community of thought and community of feeling, the old solidarity of interest between rich and poor has gone, and it is to be feared we shall never get it back again until something of the old state of things returns.

It was in one of these tortuous old streets of this ancient city, with their quaint, fantastical architecture, that some of the chief events of this story took place. It was called the Gute-Predigerstrasse (or Good Preacher's Street). Some said it was so named because its western end opened on to the Domplatz, a large open place or square with the great Cathedral at one end of it. There was, however, another object from which it may have received its name, as we shall presently see. The square, and the narrow streets on the other three sides of the church are used as a market-place, and on three days in the week it is thronged with peasants, mostly women, with their many-coloured and outlandish costumes, exposing their products for sale. It is a curious sight, this market, for there are no such things as stalls; each market-woman having her wares in baskets, which she ranges about her, while she sits in their midst on a low stool, with no protection but, perhaps, an old umbrella, in the wettest or warmest of weathers, if even that.

At the corner of the Gute-Predigerstrasse and Langenstrasse—a street running at right angles to the former, and dividing it from the Domplatz—stands an old many-storied house of quaint picturesque architecture. It was built, as was formerly the custom, of wood and stone mingled, the wooden portions being richly carved, which somehow to modern—and perhaps one should add English—eyes, gave it the look of a casket intended for the reception of some rich gem instead of a house for mere human beings. It fronted Predigerstrasse, where it showed fair breadth, although it was narrow compared with its depth, which could be seen from Langenstrasse.

Like most of the older houses of Kaiserstadt, the stories projected one beyond another up to the fourth story, from which sprung the roof—a kind of gambrel one, in which there were two other stories; but on the side towards Langenstrasse the projection was not so

great as in the front. The first storey was finished off at the corner with a beautifully carved pillar and capital. The corner of the second was rounded and adorned with a niche, in which stood a long-froked figure holding an open book. It was known as the Prediger (or preacher), and may possibly have given the name to the street, as it certainly had to the house, and to the inn it contained, which bore the sign, "Zum Gute Prediger"—to the Good Preacher.

The Prediger House dates its foundation from the time of the Reformation, when the great preachers of the new doctrines made such a stir in the world; although it owes much to subsequent restorations and additions. The lower storey has probably undergone little, if any, change since it was built, towards the latter end of the fifteenth century. The second story may have been subjected to some alterations and improvements, but in the main retains its original characteristics. The conventional carvings between the windows, and the allegorical subjects and escutcheons beneath them are quaintly original.

The third storey is peculiar, inasmuch as it is nearly all window. Possibly this storey may have originally been the top one, and have been surmounted by a roof with broad eaves, which would account for the need of more lighting. Subsequently, however, another—the fourth—storey was added, and the whole surmounted by a high-pitched mansard roof, with its additional two stories. The carvings and other adornments of the fourth and upper stories are of a different character to those of the lower ones, and much later in style; but still quaint and effective.

The Gute-Prediger House is, in some respects, a model dwelling. It is substantially built, not a mere shanty put together for temporary and provisional use—a little-more-than tent, to be struck in a few days (if not previously toppled over by the wind), when the occupier finds it necessary to move on. There is perhaps nothing more characteristic of a people than the way in which it constructs its dwellings. If it builds shanties, it is still unsettled, nomadic, with all the half-savage instincts and habits of the nomad. If, on the other hand, it builds a substantial house, well rooted in the ground, four-square to all the winds, its roof-tree well lifted up, with plentiful provision for convenience and adornment, then it is civilized. A collection of such houses is a city; a congregation of shanties is only a camp. In England there are many camps, but few cities.

As already intimated, the Prediger House was an inn—an inn, indeed, it was in more senses than one,—a huge caravansary in which a number of families put up for a brief space on their journey through eternity; a human hive, with the self-same instincts as the moving principle of all its denizens, yet how many and how various their occupations and activities.

Below was the inn proper, with Anton Nussbaum for its ruling spirit; dispensing meat and drink to gentle and simple, but chiefly to the latter, especially on market-days, when inn and innyard were ever full of country folk, with their strange ways and stranger talk:—

Anton Nussbaum, broad of girth and large of heart, with his keen relish for a jolly song and a good joke, and his scorn for a man who could not carry a full cargo of good liquor with steadiness and dignity and bear a world of adversity without debasement. With Wirth Nussbaum one must count his wife Bridgetta and their daughter Annette; who was seldom named without the additional predicate "Schöne," fair or beautiful; and well did the fair Annette deserve the title. Her, not only father and mother, but the whole house, "Zum Gute Prediger," petted and idolized. You could not see her without turning to look again, and having looked, you could not but be thankful—if any trace of thankfulness remained in your soul—that heaven had permitted so beautiful a flower to bloom on the earth. Be it added, moreover, that Annette was as good as she was fair.

The inn and the dwelling of the Gastwirth's family occupied the two lower floors. On the third floor dwelt the Bromms. The Bromm family consisted of Claus Bromm, his wife Caroline,—for brevity's sake called "Bear,"—and their friend, counsellor, and maid-of-all-work Zerafine. Claus Bromm was a professor of languages, and held the position of privat-docent and professor extraordinary at the University of Kaiserstadt. Attached to his professorship was a fixed annual stipend of some thousand gulden, equivalent to about one hundred pounds; in addition to which his teaching brought him in another hundred, making in all about two hundred pounds; on which he managed to support himself and his household, and do besides many little nameless acts of kindness. For though his parents had made a poor professor of languages of him, nature had made him a large-souled philosopher, whose world was much larger than that of his daily avocations. In his dealings with men as men, words seemed to him worse than useless where deeds were needed; and hence he was led into doing many things which the maxims of prudence would have discountenanced. But it would probably be a sorrier world than we think if all were prudent. In Claus Bromm's case, the truth was often brought home to him, that though a man may be a philosopher very comfortably on two hundred a year, he cannot be a philanthropist on the same amount, especially if he have any "encumbrances," without occasional inconvenience; unless, indeed, he were to practise his philanthropy on the latest and most advanced principles of that art, as set forth in the pamphlet on "The Political Economy of Philanthropy," which shows how the benevolent may help the poor and needy and get five per cent. on their charitable outlay. Unfortunately, however, the knowledge of these principles had not yet reached so far as Kaiserstadt; and so the Professor knew no better than to do his acts of beneficence on the old-fashioned plan. The result was that, although the wants of the household were not great, and his wife Bear a good housewife, who could on occasion make a good meal out of a bare bone and the smell of a cabbage-leaf, that grim fosterbrother of want, impecuniosity, often overpassed the threshold and threw pale shadows upon the hearth.

But they were only shadows ; for if the adage, when poverty comes in at the door love flies out at the window, was never discredited before, it was grievously so in the case of Claus Bromm and his wife ; for Bear was the very patientest of little women, and you might have taken a high wager that neither a long run of banian days, nor a long-deferred promise of a new dress or bonnet, would ruffle her temper, or trouble the tranquil calm of the domestic haven. She was the gentlest, as well as the homeliest of women ; and, albeit, unblest by Providence with children, she was the most motherly of female kind : tender affection beamed in her soft brown eyes, and irradiated her plain face like a bright sun on a rugged down. There was something English in the almost Quaker-like plainness of her dress, but, being a Hanoverian, perhaps that explained the oddity. After teaching school until near middle age, she and the Professor had met, and, after a few weeks' acquaintance, had resolved to join their poverties and enrich it with their loves, thus making a new world, which, like the Lord, in a similar case, they found good.

As Claus Bromm figures somewhat prominently in our story, it may be as well to add a few words about his personal appearance. Large, and rather corpulent, but displaying breadth rather than height of figure, his proportions gave evidence of great natural strength, although his dewlapped cheeks and double chin indicated that his life had been one of comparative physical care ; while the crows' feet at the corners of the eyes, and his wrinkled forehead, proved him to be a man of active thought and lively emotion. He carried a paunch quite French in its prominence, as though he had lived on soup all his life. It was this development, as much, perhaps, as his contemplative disposition, that made him always walk with his hands clasped at his back, which was Herculean in expanse, if not in curve and sinuosity. His shoulders were slightly rounded, but like those of a man who has carried mental rather than physical burdens. His neck was short and somewhat thickset—fit pedestal for the massive head it supported. It was the head of a Beranger, but of a Beranger cut out of the rugged Teutonic stock. The partly bald front had a protuberance almost Socratic. It was as though the palpitating convolutions of thought had succeeded in protruding the hard external carapace. Breadth was joined to height, giving an appearance of massiveness and strength to the intellect.

Had it not been for a pair of fine grey eyes, inclining to blue, his face would have been extremely common-place, so little was there of symmetry or delicacy about it. But the eyes, large and spiritual, reminding one somewhat of Coleridge's, although they were less dreamy, redeemed the whole. Mr. Walker would have called his nose a cogitative one. Fairly well shaped above, it broadened out towards the point, and sent out two large wings on to the cheek. It showed a very decided twist towards the left side, possibly from his habit of placing his right index finger to that organ by way of emphasising his words, more particularly when teasing his wife, which, like

a good husband, he was wont to do. His mouth was large, although fairly well formed, and he had good teeth, which was a good thing, as he laughed often and heartily, and wore neither beard or moustache. As for his ears, you could not have found another such pair in all Kaiserstadt: large, delicately convoluted, hairy, they were well in keeping with the general grandeur and masculinity of the man.

The fourth floor of the Prediger House was occupied by Herr Nagelmann, who followed the calling of an undertaker, and was, as became one of his trade, the soberest-looking of mortals. He was a lone man, having no relatives and but few friends; indeed, it had fallen to his lot, in the way of his trade, to bury all his last surviving relatives and most of his friends; but as they had been chiefly very poor and exceedingly unthrifty, he had considered it a saving to be able thus to bury them out of the way. Like the hands of the dyer, his nature had become attuned to what it worked in; leaden-eyed and lugubrious, he seldom left the solitude of his room to seek anybody's company; he said he loved to be alone, because he could best think when so, and he was only happy when thinking; about what he thought opinions differed. Adolf Leitner was of opinion that his thoughts ran chiefly upon the store of gulden he had got, and how he might best add thereto; and Adolf Leitner ought to know, for he was the old man's lodger, occupying his two best rooms.

In the storey above the undertaker lived the Grossbein family, consisting of Herr and Frau Grossbein, and their lame little son Fritz. Of these good folk it need only be said at present that Grossbein himself was a man who stood on a singular footing in the house, inasmuch as he had only one leg; that nevertheless, handicapped as he was, he managed to support himself in beer, or, if the reader prefers to have it put in that way, to make it necessary to be supported; and that, consequently, all that his wife Wendoline had to do was to supply him with food and keep a roof over his head, which she did without too much complaining.

With these is completed the catalogue of the human inhabitants of the Gute-Prediger House. Of the other than human creatures that made the house their local habitation, suffice it merely to name the ghost that haunted—or was said to haunt—the attic regions; and the family of storks that nested on the roof between the two stacks of chimneys. These latter, however, were only semi-annual tenants, coming with the spring and taking their departure with the fall of the leaf. Time immemorial had they been there, and, in accordance with popular superstition, were considered to bring luck to the house.

CHAPTER II.

THE WAIF.

It is never very clear how or when a house comes to get the repute of being haunted. In the case of the Prediger House, the ghost dated from some period in Claus Bromm's youth, probably ere Anton Nussbaum was, and while his grandfather yet sat in the high seat of the Gastwirth; for, be it known, the Bromms and the Nussbaums had been identified with the house for generations, the former, however, much longer than the latter. It was even said that a Bromm had been the original builder of the house, in proof whereof the key-stone of an arch in the cellar could be seen bearing the self-same arms that the Professor still claimed, namely, three yellow trifoliate flowers on a red shield. Quartered with these was an escutcheon bearing the half figure of a grey-headed black on a yellow ground, supposed to be the armorial bearings of the wife of the original builder, from which it would appear that they were of noble rank. Since then, however, times had changed with the Bromms; wealth had departed from them; and though their last descendant still lived in the old house, it was only as a tenant, the fee-simple of the hereditament having passed from a Bromm to a Nussbaum three generations ago, that is, during the lifetime of the grandfathers of Claus and Anton respectively.

At that time an ancient couple occupied the garret, a cross-grained ill-sorted pair named Knutz, of whom the common fame was that they never spoke to each other, nor had done for years; yet so necessary to each other, from long habit and wont, that, miserable as life was together, it was insupportable apart, so that when Joan died, not without suspicion of a helping hand, Darby betook himself to the nearest pond and put himself in. Ever after, the rooms they had occupied were said to be haunted, but whether by the spirit of Darby, of Joan, or both, report saith not. The fact that the house was haunted had ever been a matter of great satisfaction to the Professor. It was one of the oddities of his mental constitution that he was firmly persuaded of the existence of ghosts. He believed in them as staunchly as in any of the most common natural phenomena. To his mind it was no argument against their existence that so few persons had seen them, or had claimed to have seen them. People, he argued, were differently constituted: some were deaf to certain sounds, blind to certain sights, incapable of certain sensations: to this one the rainbow was colourless, to that the nightingale's song had no music: hence, because this one or that one had no eye to see a ghost, and no mind to conceive one, it did not follow that there was no such thing. The belief in ghosts, indeed, was a part of his unwritten creed. Not only did he believe in the universal and common spirit of Plato, but in the particular and tutelary spirits of Paracelsus: *ascendens constellatum multa revelat quærentibus magnalia naturæ*. Hence it was a comfort to him to think that the

Prediger House had its ghost. "I should think the place was in danger if the ghost left us," he would say; "I would as soon be without the storks as without the ghost."

There were two things, the Professor used to say, that he regretted to observe constantly on the increase in modern society: one was the decay in the belief in ghosts, the other the growing distrust of each other manifested among men. "Men don't associate together as they used to do," he would say. "I remember the time when nearly everybody in Kaiserstadt knew each other, and were on speaking or nodding terms, if not intimate. Now a man can hardly claim to know his neighbour. Formerly, if you could present a fair moral bill of health, you needed nothing more as a passport to society; now, such credentials are hardly looked at: it is your banker's, your tailor's, or your milliner's certificate that is required."

His opinion that the two things—disbelief in ghosts and mutual distrust among men—arose from the same cause, the materialistic tendency of the age, may not seem capable of proof to all minds; but he established the connection quite satisfactorily to his own mind. In spite of their ostensible allegiance to religious principles, men, he opined, were coming very generally to regard our run on earth as the sum total of life, and the great aim of it as the accumulation of riches. Success was the god they worshipped; "how to get on" comprised the whole duty of man. The poor man was looked upon as a necessary evil: necessary because of his power to labour and carry burdens; an evil because he was liable to kick over the traces, to become sick and a burden, and generally to make a nuisance of himself. He was educated to do his duty to the State—that is, to the rich; something, too, was conceded as being due to him when in the gutter, diseased, or criminal; and so we had hospitals, prisons, &c. But as to anyone deeming it necessary to regard him as a fellow-creature, except on abstract principles, that was out of the question. There would be no health for the world until men embraced philosophy and worked for the well-being of all instead of for individual wealth.

Such were Claus Bromm's opinions, and it is but just to say that he acted up to his belief. If there was ever a friend of man, he was one; he had no wish for wealth, he cared nothing for luxury, and his vices were of the most innocent description. One of them was a vagabond spirit that took him out at all sorts of hours and into all sorts of company. There was nothing of that exclusiveness or conservativeness about him which is generally supposed to go along with learning. He preferred the poor to the rich, the street to the lecture hall, even the cabaret to the drawing-room. Nor did these predilections arise from any low or vulgar streak in him, but simply from a love of the natural man. It may be easily imagined that these perustrations of his brought him in contact with all sorts and conditions of men, and that the knowledge thus acquired resulted in many strange notions—strange, that is, when compared with the commonly received opinions of society, and of professors of Latin

and Greek in particular—some of which will doubtless appear in the course of the ensuing narrative.

So much having been said, it need hardly be added that the Professor presented almost the beau ideal of a contented mind. There were, he used to say, but two things he regretted: one was that he had been made a man of learning instead of a man of action; the other was that he had not been blessed with children, whom he was fond of styling the *appoggiaturas* of life, because, he said, though they robbed it of a portion of its time, they added to its music. Still, whenever he recurred to this subject, he invariably dismissed it with the remark that the children were doubtless best where they were, or with his favourite Horatian maxim: *Nemo quam sibi solem—contentus vivat.*

The chief times for Bromm's indulgence of his vagrant spirit were early morning and night. He was generally up with the sweep, the milkman, and the baker, if not with the lark; and at night, when the streets and promenades were chiefly given up to the watchman, he might still be seen taking his walks abroad.

On one of these nocturnal rambles, now many years ago, he had found a poor homeless girl asleep on a bench in a retired part of the promenade, with the rain falling upon her bare head and scantily covered body. He took her home with him, as she had no other to go to, and she had been there ever since. She proved an uncouth specimen; but by means of constant drill and tuition, he and Bear had managed to lick her into shape: and in the long run their patience was amply rewarded, for in Zerafine they found a veritable treasure. What, being bred in the bone, would every now and then most annoyingly come out in the flesh, was a vixenish temper, an impatience of low and suspicious people, a disposition to have her own way, and a most unbecoming propensity to laugh at the most unreasonable times, and even at people to whom she ought to have looked up to with awe.

One night, towards the end of a wet cold summer, the Professor's vagrant steps led him from the more sheltered streets to the open promenade by the river, and thence on to the Devil's Bridge. What took him there he never exactly knew, except that he was a seeker after sensations, and that the swollen stream, dashing against the broad buttresses of the bridge and struggling through its narrow arches, promised a rare one; one, moreover, in accord with the then state of his feelings. A simple child of nature, he ever found the pendulum of his emotions beat more or less in unison with the elements; and to-night, dark and blustering as it was, with no moon and few stars visible, he felt in a melancholy mood. Something in addition to the inclement night, however, had tended to produce it. An hour before he had held in his arms Frau Nussbaum's ten-days old baby, a fat red lump of humanity, that instantly left off squalling to look into his serene countenance; and the incident had recalled, with a touch of bitterness, his own childlessness. Could not Providence, he thought within himself, have spared him one to be as an

earthquake in his house and a light to his path? He wanted but one to give him youth in his age, and to mate with him in his coming childhood. He knew families round about, vastly poorer than himself, in which they swarmed like ants; they came tripping up each other's heels, unsought, and yet they were not vouchsafed to his prayers. Well, he continued in his soliloquizing strain, Providence was inscrutable—or a *farceur*. He would write an essay on the subject for the *Uebersicht*.

The *Uebersicht* was the literary and philosophical organ of Kaiserstadt; and whenever any subject specially attracted his attention he decided to write upon it for this review, the editor of which he knew, and who, whenever he submitted his intentions to him, encouraged him to put them into execution; but his good intentions in this respect seldom advanced much beyond the first rough draft of his proposed article. When he came to look over what he had written he found so many points in which his knowledge was deficient, or so many authorities he wished to consult, that long before he had completed his references his mind had become engaged with some other subject, equally importunate for the time being, and equally sure to be laid aside in due course. Hence his desk was full of manuscripts in various stages of progress—to be completed some day.

His soliloquy had brought the Professor to the further end of the bridge; at which point he turned round and began to retrace his steps more quickly than he had come, with the intention of going home and jotting down a few thoughts for his projected essay while they were yet warm.

Thus cogitating, he had reached the middle of the bridge, where there was a recess, when he was suddenly checked in his walk and his lucubrations by an object lying close under the parapet. It looked in the dim light, or in the darkness, like a heap of rags. A closer inspection, however, revealed the fact that it was a human being. So still was it, and in an attitude so different from that of sleep, that Claus at first thought the being, whoever it might be, was dead. On stooping down over it, however, and bringing his ear close to the poor creature's mouth, he became aware that life was not extinct.

What was he to do? There was not a soul about to help him, nor was it likely that anyone would pass that way at that hour—it being now after midnight—and to leave the body there while he procured assistance might complete the work that disease, want, or exposure, or all combined, had begun, if even now earthly help was not vain. For the rain, which had ceased for some time, was beginning to fall again, and the air on the exposed bridge was raw and cold.

By the light of a flickering lamp on the other side of the bridge, he was able to see that the form was that of a youth, apparently not more than sixteen or seventeen years of age, rather small in size, and of a delicate contour of body. He was enveloped in a long Inverness cape, and a low-crowned felt hat lay by his side, displaying a mass of yellow hair, which the rain had matted about his forehead.

The old gentleman gave an anxious look up and down the bridge, in the hope that he might catch sight of a policeman, but in vain; and what with the howling of the wind and the roar of the water, it was useless to think of calling for assistance, even if there should be anyone within hailing distance. There was, therefore, only one alternative to leaving the poor fellow on the bridge, seeing that he had tried in vain to rouse him to consciousness, and that was to take him in his arms and carry him to where he could get assistance.

He essayed to lift the body, and was surprised to find how light it was. He had noticed how pale and emaciated the face was, but little thought famine or disease could have wasted the form to such an extent.

"Du lieber Gott!" he exclaimed, taking the limp, wet bundle in his arms, and striding away with it as if it had been a lost lamb and he its shepherd. At the corner of Langenstrasse he stopped for a minute, more to get a better hold of his burden than to take breath, and then trudged on again until he reached the Prediger House. He met not a soul; the only living thing abroad was the wind, which seemed to increase in force, or rage, the nearer he approached the house, and tugged and pulled at his burden as though it would tear it from his grasp. The rain, too, became heavier, and by the time he had reached the door was descending in torrents, and pitilessly beating into his face and that of his charge. When he had succeeded in opening the door and getting inside, it was quite a struggle to force the door to again, wind and rain contending against him as though to defeat his purpose of succouring the youth; and when, with an almost Herculean effort, he finally closed the door, both seemed to unite in a howl or scream of despair.

Bear and Zerafine, who had not yet retired to rest, heard the commotion at the door, and the succeeding heavy steps ascending the stairs, and thought it must be Grossbein coming home from a carouse, although, as Zerafine put it, he generally made his stops more distinct, referring, of course, to the foot-falls of his footless leg. Some one else also seemed to think it was he, for a voice, speaking from above into the nether darkness, asked—

"Bist es du, Grossbein?"

It was his wife Wendel, who was always on anxious watch for her husband, who generally struggled into port like a good argosy, full to the very hatches, if not, indeed, carrying a heavy deck load to boot; which, for a crazy hull like his, was double sin against Mr. Plimsoll's rules of safe navigation.

Bear stood with half-opened door listening for a reply to Wendel's question, and expecting to hear Grossbein's invariable gruff answer, "Geh, zu Bett" (go to bed); but she heard instead the well-known voice of her own spouse, saying—

"No, Mrs. Neighbour, it is not your Grossbein, but my Mude Beine;" which in English would signify, "No, it is not your big legs, but my tired legs."

Bear at once came out on to the landing, and exhorted her husband to quietude, saying, "Make no noise, Claus; the baby has only just gone to sleep, and it would be a pity to wake it."

"I hope we may be able to wake mine," answered Claus, mounting slowly with his burden.

"What do you mean?" asked his wife, peering into the darkness of the stairway; but seeing nothing, and hearing only Claus's stertorous breathing, she cried: "What is the matter?" at the same time bidding Zerafine bring a light.

But before that damsel had time to fetch a candle, or ere Claus could frame an answer to her double question, the good woman saw for herself what the matter was, as her husband struggled to the landing and into the light shed from the door with his helpless bundle of humanity.

"Du lieber Gott!" exclaimed Bear, with widely dilated eyes; "What have you there?"

"Make room," cried Claus, brushing past his wife, who seemed too much astonished to move, and upsetting Zerafine who was rushing out with a candle in her hand.

He soon explained what was the matter when he had laid his burden on the sofa and got his breath; and Bear and Zerafine, who were joined by Frau Grossbein, set to work to restore animation to the corpse-like youth.

"Poor young man!" exclaimed Bear, wiping the rain from his forehead; "did ever any one see such a fine delicate face on a young man? Why, it look's more like a girl's."

"If I'm not mistaken, it is a girl," said Wendel, who, having taken off the youth's cape, was trying to undo his collar.

And such, in fact, proved to be the case. When divested of masculine habiliments and placed in Zerafine's bed, the poor, delicate, fair-haired youth turned out to be a girl of sylph-like proportions and surpassing beauty,—but oh, how hunger-bitten and wasted! The good Claus walked about the place, anxious and restless, going every other minute to the door of the room where the poor waif was lying to inquire how she went on; rejoicing when he heard that she was showing signs of returning consciousness; but refusing to take rest until she was completely restored; indeed, finding his mind in such a state that repose was out of the question. It would have relieved him to have been able to do something; but there was nothing for him to do but to wait. Every few minutes he suggested to Bear the advisability of his going to fetch the doctor; but Bear, being of opinion that their patient was going on as well as could be expected, said it was useless to go for the doctor, especially in such weather. And truly, as the phrase goes, it was not fit to turn a dog out. The wind blew with a force that seemed to shake the house, while the rain came down in such a deluge that the streets were swiftly turned into watercourses and the Domplatz into a lake.

"Grosse Himmel! what would have become of the poor child if I had not found her as I did and brought her in?" said the Professor

within himself, as he stood at the window watching the storm, and trembling to think of the fate that might have been hers.

All through the night the storm continued, reaching its climax about an hour before day-break. By that time the patient had fully recovered consciousness and had been induced to take some cordial drink; after which she had fallen into a light, but disturbed sleep. In that state Claus was allowed to take a peep at her; and as he did so he murmured the words, "*Nitor splendens marmore purior*;" where-upon Bear, thinking it was a portion of the litany of some ancient and heathenish worship of beauty, incontinently hurried him out of the room.

Wendel, who had rather enjoyed his astonishment at the sight of the golden head and classically chiselled features of the famine-stricken beauty, presently joined the Professor in the next room, and asked him what he thought of the stranger.

"Well, morally, of course I can't say," he replied, "until I have known her longer and conversed with her; but speaking of her physically, she has the beauty of an Undine. Indeed, I don't know but that she is in reality an Undine. Finding her where I did, and having to struggle for her possession against the elements, which seemed to unite in their efforts to tear her from me, I should not be surprised to find that she is something more than mortal. Hark! did you ever hear such a storm? How it howls and screams about the house, as though in distress at some loss. Do not the wind and the rain together seem as though they would tear the windows out? No! no!" he exclaimed, as though addressing the spirit of the storm, "you cannot touch her now; your empire over her is at an end; she is in hands more powerful than yours; be still, therefore, and begone!"

As he uttered the last words he waved his hands solemnly, as though, like Prospero, he had power to command the elements. Wendel shuddered and exclaimed—"La! Herr Bromm!"

Bear now joined them, and assuring Claus that the patient was sleeping more calmly, she besought him to take some rest, saying she and Zerafine would divide the remaining watches of the night between them. Claus reluctantly consented, on Bear promising to come and tell him something presently about their patient.

The sum of what she told him was that in her wanderings the poor girl had given utterance chiefly to English, though mixed up with some German words; from which fact Bear concluded that she was English. "But what can have brought her here, and in such a garb," said Bear, "is a mystery; though that there is any evil in the child I will not believe; she seems, from her talk and her manner, looking fixedly at something imaginary for a moment or two, then shuddering, and hiding her face, as though there was someone she dreaded and wished to avoid. Can any one have been cruel to her, Claus, and caused her to run away?"

"Nay, I cannot tell," answered Claus; "but some sad things take place in the world sometimes."

(To be continued.)

Poetry.

TREASURE-TROVE.

(From the German of GÖTHE.)

I strolled to the woods—it was my thought
To look around me and trouble for nought.

In the shadow I saw a floweret glow,
Like a glittering star staying here below.

I stooped to pluck it, but heard it say,
“Shall I be broken to wither away?”

So I dug it out, with its root complete,
And took it home to my garden neat.

And planted it there in a quiet place,
Where still it blossoms in silent grace.

W. PLATT.

SONNET.

Thou bonny star, that through my window-pane
Shinest bright and fair, here on this foreign strand
As thou wert wont in mine own native land,
I hail thee as a friend, now seen again,
With gladsome eye, and heart with rapture filled,
Since thou art still to me what aye thou wert ;
Not like to those whom I have known, now chill'd
From that warm zeal which once was e'er alert
To meet with smile, and part with fond regrets ;
For thou, bright beaming eye, so full of love,
Methinks thou speak'st of love eternal, pure,
A love that lives and knows, nor doubts, nor lets ;
That can no breath from deep Avernus move,
But still from its own greatness must endure.

FRANKFORT.

Book Notices.

Historical Legends of Northamptonshire. By ALFRED T. STORY,
author of “Women in the Talmud,” etc. (London: Fowler,
Imperial Buildings, Ludgate Circus.)

This is a most interesting collection of historical legends, which any one may read with both pleasure and profit. They must have cost the author a great deal of out-of-the-way reading and diligent research ; as many of them concern times when there was no written history, and of which all we know is legendary. But, as the author tells us in the motto he has chosen for his volume, “History to be

true must condescend to speak the language of legend; the belief of the times is part of the record of the times;" so these legends give us vivid pictures of the days to which they relate. There is a curious legend regarding the battle of Naseby—told in smooth, flowing verse—which we should be glad to hear confirmed from some other source. To pass from the matter to the form of the book—it is got up in a style that does credit alike to publisher and printer; the typography is beautiful, and the binding exceedingly neat. It would make a charming present to a deserving girl or boy. J. W.

A New Theory of the Origin of Species. By BENJ. S. FERRIS. (New York: Fowler & Wells.)

We have just received the above work. The nature of the work may be inferred from the following paragraph, taken from the author's "Preliminary":—"In 1859 Charles Darwin presented the theory in a definite and systematic form, and then and since has supported it by a vast array of facts. And it is the one at present most extensively accepted. But in the judgment of many the 'Darwinian Theory,' so called, rests upon a mass of cumulative evidence, of which no single fact proves anything material in its support; and by a loosely applied logic, it is received as true, because no other has been presented which appears so well to harmonize with the facts.

Facts and Gossip.

WE have received the first numbers of *The Illustrated Australian Phrenological, Physiognomical, and Hygienic Magazine*, published in Sydney. It did not reach a third number. A paragraph on "Life Assurance" appears to have been the cause of death; the editor having been in that line of business. It is a pity, because it promised well.

SOMEONE—probably the essayist himself—has sent us a paragraph from a newspaper, stating that an essay against phrenology was recently read before a society connected with Toller Chapel, Kettering. As a proof of the gentleman's ignorance of the subject he treated, we only need quote one of his statements. Speaking of delineations of character, "these the essayist pronounced to be mere coincidences, and not more startling than those afforded by Dr. Ledger's magnetoscope many years ago." Certainly not, seeing that the doctor's delineations were based on phrenology.

"THE doctor"—we quote from a recent account of Dr. Ledger's discoveries—"had persuaded himself that to every phrenological organ there was found to belong one—and one only—of the seven different oscillations of his magnetoscopic pendulum, *i.e.*, normal

rotation, elliptical, or oval, N. and S., E. and W., N. E. and S. W., and S. E. and N. W. By placing his left middle finger on the organ to be tested, and his right, as usual, on the brass disc, the doctor observed that the pendulum began invariably to move in the direction belonging to that organ, the amount of movement indicating the degree of development. According to this evidence, therefore, it would become possible to ascertain, with much accuracy, a man's dispositions and character without the least knowledge of his previous history."

"So fascinated," the account goes on to say, "was Dr. Ledger with what he regarded as a discovery fraught with many beneficial results, that neglecting for the time his analytical pursuit of the wondrous fluid-essence (Reichenbach's 'Odyle') which was its origin, he started on a tour, and, with his silent oracle, made the round of most of the gaols and lunatic asylums in the kingdom, astonishing governors and doctors with his impromptu biographic sketches of those under their charge, extending, in many cases, even to the very delinquencies for which the criminal portion had been made responsible."

THOSE of our readers who are of an ingenious turn of mind may like to try their hands at the construction of a Magnetoscope. The directions, which are very simple, are as follow: A brass rod about a foot long, crowned with a brass disc the size of a florin, is screwed upon an immovable base, such as a heavy table, stone floor, or wall. From beneath the disc extend two arms, one composed of wood or metal (conductors of electricity), the other of animal matter, such as whalebone or porcupine quill (non-conductors). From either arm depends a silk of equal length, with a pendulum of equal weight. The operator places his middle finger lightly on the immovable disc which crowns the instrument, when the pendulum attached to the conducting arm acquires a certain movement (greater or less according to the nerve power of the operator), while the pendulum from the non-conducting arm remains perfectly still.

THE first meeting of the proposed class for Instruction in Phrenology will be held on the second Thursday in April, at 7.30 p.m., in Mr. Fowler's room, 9, Imperial Buildings, Ludgate Circus, and the classes will be continued every Thursday evening until the end of June, if a sufficient number of members give in their names on or before that date. Country members will be allowed to pay for each evening they are able to attend. To begin with the class book will be the "Manual of Phrenology" (price 1s. and 1s. 6d.). For further particulars apply to Mr. Fowler, 9, Imperial Buildings, Ludgate Circus, E.C.

A GENTLEMAN residing in the country has suggested the holding of a Phrenological Class every day, or every other day, during the

month of July, for the convenience of those who come to town about that time, or who are then taking their holidays. The thing could be done, but of course it would depend on the number giving in their names beforehand.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

O. N. (Folkestone).—You are remarkable for the spontaneousness of your thoughts and for the quickness of your movements; are all alive to what is going on around you; are a great observer both of men and things generally, and have a good memory of almost everything that comes under your cognizance. You are a keen critic, quick to see points of difference and resemblance, apt at improving things, quite ingenious, always ready with a way to get out of a difficulty, very plausible, and capable of making a good platform speaker. You are not given to hoarding, although you know the value of money, and are ready to work hard, or scheme hard, to get it. There is a good deal of generosity in your disposition; are generally frank and open-hearted, decidedly just and careful to fulfil your obligations, although not always as cautious and circumspect as you should be; are quite sociable, fond of home and friends, and capable of throwing yourself into benevolent, social work with much spirit. You are very excitable, and in that direction lie your chief faults.

A. C. (Vauxhall).—You are very independent and proud-spirited, quite capable of taking care of yourself, and desirous of being your own master. Are also firm and persevering, unwilling to give up a purpose you have once formed, and of a steady, trustworthy disposition. Are sociable, fond of home, quite energetic, and possessed of a good deal of general intellectual ability; quite anxious to improve yourself and to get up higher, but more for the sake of intellectual and moral enjoyment than for anything else. You have a good memory in most respects, though possibly a little short in regard to dates, &c. Could study history, philosophy, and literature well, and have some talents as a writer.

J. T. L. (Gateshead).—Few men are more ardent and earnest than you. Everything you approach you take hold of in a whole-souled manner. You can't do things in a half-hearted way. The social and moral faculties take the lead in your organization. You must be working with others to be happy. You are impelled by

your moral as well as your social instincts to be trying to improve your fellow-beings. Are very sympathetic ; have also a strong sense of justice and right, and an act of wrong fires up your feeling of indignation. You can never speak so well as when your feelings are thoroughly roused. Your intellect is one that qualifies you for scholarship, science, literature, rather than for trade or manufacture.

W. S. (Wigan).—Your intellect appears to be the best part of your head : all the powers appear to be fairly well represented, while some of them appear quite large, especially the perceptive faculties, as Observation, Form, Size, Weight, and Order. Constructiveness also is large, which, with Causality and Comparison, should give you extra ability to plan, organize, judge of the qualities of things, and devise new ways of doing things. You have some inventive capacity and not a little originality. Are a little backward in speech, find it difficult easily to confide in people, and are perhaps a little too suspicious. Are fairly sociable and, from your active Benevolence, should take an interest in matters connected with public progress and improvement. You would be as well with a little more pride and self-esteem, and perhaps also a little more firmness and power of quick decision. Are very cautious, but perhaps not always circumspect enough. Do not give way to feelings of disappointment and to a monotonous tone of mind ; but encourage cheerfulness and variety.

E. K. (Southwark).—Very practical, shrewd, and matter-of-fact ; not easily carried away with new notions ; like the old beaten paths, and would cling to old-fashioned beliefs, tried by generations, to newer ones, however striking. Are not one to speculate in regard to matters of truth, but use your judgment and allow yourself to be guided by results. Are adapted to a business in which good judgment, quickness of observation, method, courtesy, and trustworthiness are required. Would have made a good builder, contractor, farmer, nurseryman, navigator, &c. Are steady, persevering, energetic, and capable of putting forth a great deal of effort if needful ; but are not greedy for property, and can be more easily satisfied in that respect than most men. Are cautious and circumspect, and most careful that your moral conduct shall be above reproach. Do not appear to be proud or haughty, but you respect yourself and others, and you expect the same in return. Your name ought to be "Steadfast."

T. R. O. (Shrewsbury).—You are well qualified for a phrenologist. You have intelligence and high-mindedness enough to learn the science well and to put it on an elevated platform. Do not be one of the Cheap Jack kind, and you will respect yourself and be respected. But in your respect there is little need for the caution.

J. P. B. (Africa).—These photographs indicate a remarkably fine organization. The temperament is one that favours a high tone of thought and emotion. The lady belongs to a family noted through many generations for its respectability, culture, and refinement. The moral and religious faculties appear to be all large and active. She

is a woman of large sympathies and great and active interest in the general welfare. She could not confine her sympathies to her own family or her own circle, but must be actively engaged in good works according to her means. Few are capable of taking a more calmly just view of things than she is. Her intellect is a very clear and practical one. She has great common-sense, and, although she has taste and an eye for adornment, is not led away from the practical by the merely ornamental. She is a good manager ; is exceedingly orderly, and must have everything done to time ; has a great faculty for business ; is firm and decided, especially in matters of principle ; very energetic when necessary, and capable of sustaining herself under great trials and difficulties ; quite domestic, fond of home, strongly attached to friends, and most devoted in her affections. Is of a family in which many have lived to be of great age, and, barring accidents, she will be likely to follow their example.

R. H. (S. Shields).—Indicates rather an imperfect physiology. There appears to be a tough streak in her, but she will suffer a good deal from ill-health, or from a lack of robust health. There appears to be a strong domestic nature. She may be inclined to stay at home too much ; could easily get into the habit of narrowing the circle of her acquaintances and of her sympathies. Her affection will be accompanied by some jealousy on that account. The moral faculties appear to be strong, but not broad. The intellect is good and quite practical, but the memory rather poor (partly probably through ill-health.) Very firm, decided, sensitive, and loving. Coiffure bad for phrenological purposes.

P. E. (Leeds).—This lady has a remarkably strong organization. She comes of a family noted for their vitality and ability to live against all odds ; there is almost a feline tenacity about them. She is very vivacious, sprightly, buoyant, active, and excitable ; people do not go to sleep where she is ; is active on her feet, and should be able to dance all night, and do a hard day's work on the morrow ; possesses many of her father's peculiarities, and is, like him, a lover of outdoors and of healthy animal nature, a warm and ardent lover, but not one to break her heart *quite* over a disappointment, and one capable of sympathizing with men and their labours more than with women. She is very fond of music, and should be able to sing well. The intellectual and moral organs appear to be fairly well represented, but call for no special remark.

G. C. H. (Pahran, Melbourne).—The photograph you send is rather small for phrenological purposes, but it indicates a good deal of general strength of constitution and intellectual ability. You cannot do better than train and cultivate your intellect all you can, so as to make the most of yourself. You are adapted to farming, horticulture, surveying, contracting, or anything in that line. You should not get into an in-door occupation.

M. W. (Leicester).—You are almost too tender-minded, if not too tender-hearted ; need to harden yourself, and strengthen your con-

stitution ; little things affect you too much, both physically and mentally. To improve yourself you need to encourage observation, memory (of details), order, calculation, and application. Your mind passes so quickly from one thing to another that you do not reap the full benefit of your reading and experience ; hence there is a kind of "halting" in your knowledge. You have good powers of understanding and judgment, however, and your religious and moral emotions are influential. People will call you "old-fashioned," and you will be about as young and as nimble in your faculties at fifty as now.

P. G. (Hartwell).—Of course we could say much more than we do about the photographs ; but we cannot afford the space to give characters fully. We point out the leading traits.

E. H. (Leicester).—This lady has rather an evenly-developed head, and should manifest a correspondingly harmonious character, chiefly remarkable for the following traits : Great neatness and order, musical talent, memory, especially of things seen, experienced, or understood ; more than common artistic ability and general ingenuity ; considerable wit and mirthfulness of disposition, and good powers of expression, with much critical acumen. She may be put out at times, probably is, but her general disposition is one of great amiability. Is very sympathetic, kind-hearted, and willing to work for the good of others, generally hopeful, although somewhat inclined to magnify difficulties ; exceedingly cautious and circumspect, and very anxious to please and get the good opinion of people ; not proud enough ; firm in matters of principle, very sociable, and possibly a little jealous.

S. H. (Carnforth).—You are not adapted to a sharp business in trade, nor to one requiring great hardship ; are scarcely ingenious enough to make a mechanic, where you would have to understand the principles of mechanism, but could work by the eye successfully. Can compare one thing with another, sort out, classify, and arrange goods, etc. If in a museum or library, you could easily show your gifts in doing the work required there. Are favourably qualified to oversee, and to have charge and responsibility, but, not knowing anything about your education, habits, health, and sphere of life, we can only speak abstractedly of what the organs indicate.

J. M. (Hawarden).—You are in some respects an intellectual oddity. Your strength does not equal your desire, or you would be able to command success. You have great power of work, but are rather easily exhausted. Have great intellectual curiosity, and, though your mind covers almost too much ground to allow you to be very thorough in all you take hold of, yet you will, before you finish with life, manage to amass an immense deal of varied information. You are not only naturally qualified for the study of science, but of philosophy ; and you cannot do better than work away at your studies as opportunity allows, and watch your chances. It would take all the space we can afford under this heading to treat your peculiarities alone.

THE
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THOMAS A. EDISON: THE ELECTRICIAN AND
INVENTOR.*



HIS portrait indicates an organization of remarkable activity. The mental element predominates greatly in the physical constitution, and so contributes to his energy of thought and facility of action.

His brain is broad between the ears, indicating that he possesses force of character in a high degree, which is exhibited in his disposition to be doing—to find opportunities for the employment of his hands, or mind, or both. He has courage to work out his plans and purposes when obstacles present themselves. Earnestness characterizes his efforts in any chosen direction; and this, coupled with his mental intensity, renders him very thorough-going. Whatever engages his attention so far as to make him a worker, either as principal or assistant in its promotion, receives no half-way attention. He throws himself vigorously into its methods. Back of his efforts lies Ambition, which is indicated by the width and fulness of the upper back part of the side-head and crown. He has ever entertained high aspirations; to achieve whatever he may attempt has been an uppermost quality in his mental character.

His intellect is characterized by a large proportion of the reflective element. He has also very strongly-marked Constructiveness and Ideality. There the faculties are closely associated, and have impressed his whole intellectual career. The brain is well developed in the moral region, giving a strong sense of duty, an appreciation of honour and respectability. He is also sympathetic and confiding, yet possessed of so much impressibility and sensitiveness as to show irritability, and people who do not understand him may think he is impatient and fretful. His extraordinary mental activity

* The following notes on the phrenology of Mr. Edison are taken from the *American Phrenological Journal*.

works off his physical force with great rapidity; so that, unless he orders his habits in accordance with the requirements of physiology and hygiene, he will become exhausted and break down. We would suggest, for the sake of the career which has been already so grandly opened by him, and for the achievement of further and even greater successes, that he take special precautions for the invigoration and safety of his health.

Thomas Alva Edison, the subject of this sketch, was born in Milan, Erie County, Ohio, U.S.A., on the 11th of February, 1847. His father's people came from Holland, and settled near Newark, N.J. His father's mother was an Ogden, from a branch of the New York family of that name. The Ogdens were of English descent. When Edison was about eight years of age, his parents removed to Port Huron, Michigan, from which time he appears to have begun to earn his own living. He was then a newsboy, and, at the age of twelve, obtained an exclusive contract for the sale of newspapers on the Detroit division of the Grand Trunk Railway. Here his energy and determination to excel began to exhibit itself. He employed several boys to aid him, and continued to travel and sell newspapers until seventeen years of age.

Meanwhile, he purchased a small printing outfit, which he carried on the train, and with which he printed a small weekly paper, called *The Grand Trunk Herald*. In this office he was editor, manager, typo, and all within himself. Articles were contributed by the *employés* of the railroad. The printing was done by hand pressure, and the paper issued with regularity. Mr. Edison finally abandoned the printing business, and set up instead a travelling chemical laboratory, consisting of innumerable bottles and packages of chemicals and drugs, which he carried in a large chest on the train, experimenting with them during his leisure hours. This enterprise came to sudden grief by the spontaneous combustion of several ounces of phosphorus, and the consequent firing of the baggage car in which they were carried.

Upon the breaking out of the war in the South, the enormous increase in newspaper traffic confined his attention solely to that branch of industry, and offered opportunities for the exercise of his original genius to meet the eager demand for news—a demand which Mr. Edison noticed could ill brook the tedious movement of the trains. He conceived the idea, and had constructed large bulletin boards, one of which he placed at each station along the line. Upon these boards he caused to be chalked, by telegraph operators and station

agents, the news headings of his papers, which he telegraphed in advance of the trains. This device was noticed and characterized by the press as a "thoughtful idea of a newsboy," and was speedily adopted on other roads.

The relations young Edison thus formed with the telegraph awakened a desire to understand it, which he gratified by very soon learning to operate it. Not content with the ordinary opportunities offered by the railway telegraph stations, he, in conjunction with a neighbour having similar inclinations,



built a line of their own, one mile long, through a wood dividing their houses. Edison constructed the instruments, but having no battery, and doubtless no money to purchase one, was at a loss to know what to do. A novel expedient soon occurred to him, but its application resulted in total failure. Having noticed that, by rubbing a cat's back, electric sparks were generated in the fur, he tried the experiment of fastening the wire to the cat's legs, and rubbing Tabby briskly, watched for an effect upon the instrument, but none

followed. His failure he doubtless attributed at that time to the crudely constructed instrument. Edison now became absorbed with the telegraph, and speedily very proficient as an operator. He took charge of the telegraph office at Port Huron, but soon quitting the railway telegraph service for the higher branch of commercial telegraphy, we find him occupying positions successively at Indianapolis, Cincinnati, Louisville, Memphis, and Boston.

While at Cincinnati, in 1867, he conceived the idea of transmitting his messages over one wire at the same time. This had been attempted by electricians many years before, but of this fact Edison was totally ignorant, and he continued to make experiments in every branch of telegraphy, attending to his office duties at night, and experimenting in the daytime. It was this compulsory division of labour which founded the habit, now too strong to be shaken off even by the combined pressure of family and health considerations, which is commented upon as an eccentricity by those who do not appreciate the power of a long-established habit in the division of one's mental labour.

In his early days, as well as in later, Mr. Edison's entire earnings were spent in these experiments, he having few personal wants, and no vicious extravagancies of any kind. In Louisville, Cincinnati, and Boston, he always had a laboratory of more or less magnitude.

In 1869 he left the operator's chair entirely, and came from Boston to New York with a duplex and a printing telegraph, the latter being the basis of nearly all the Gold and Stock Exchange reporting telegraph instruments. In New York he soon formed an alliance with electricians and manufacturers, and after years of varied experience with partners in the laboratory and in the shop, has finally and firmly established himself upon an independent footing in an extensive way at Mento Park, New Jersey, where he is surrounded with everything which can contribute to domestic comfort or facilitate future invention and research.

Among Mr. Edison's contributions to the telegraphic art, we find sixty patents and caveats assigned to the Gold and Stock Telegraph Company of New York; fifty to the Automatic Telegraph Company; and some thirty patents, and numerous caveats, for miscellaneous inventions; in all, a total of 159 patents and 67 caveats, and all taken out since 1870. He is joint-inventor with E. A. Calahan of the American District Telegraph instruments (the modern messenger service); inventor of the Domestic Telegraph system (another messenger service); inventor of the main features in the Gold

and Stock reporting telegraph ; inventor of the American Automatic (chemical recording) system ; inventor of a chemical recording automatic Roman letter printing telegraph ; inventor of the celebrated quadruplex system now so extensively used by the Western Union Company ; inventor of numerous forms of duplex telegraphy ; and inventor of the Electric Pen, which is fast becoming popular as a substitute for circular printing. It consists of an electrical engine fixed to a needle working vertically in a hollow tube, the whole being held in the hand as a pen, and operating to puncture fine holes in a sheet of paper upon which one writes, thus producing a perfect stencil of the writer's matter. By placing this stencil upon a blank sheet, and passing an ink roller over its surface, a perfect fac-simile in ink of the perforations may be had.

The Electro-Motograph—for which he received the eighth patent issued by the United States for original discovery—would of itself give us a perfect system of telegraphy were magnetism never discovered. It, in fact, offers the only other means of contributing motion (and controlling it) to mechanism at a distant point—the foundation principle of the electric telegraph. The discovery which led to the construction of this instrument is this : that when certain chemical salts are subjected to the action of an electric current they lose all their frictional properties. Thus, if a strip of paper is moistened in a solution of, say, chloride of potassium, and laid upon a plate having connection with one pole of a battery, and a flat platinum strip having connection with the other pole of the battery is held by the hand, and drawn heavily over the surface of the moistened paper, there will be found little or no friction between the platinum strip and the paper, it gliding over the surface like iron on ice. But if now the electric current is interrupted, the hand will be involuntarily stopped, because the current, no longer passing through the paper, the normal friction of the paper is instantly applied. Upon closing the battery current while the hand is slowly drawing the platinum strip over the paper against the friction, the hand will be instantly released, and involuntarily glide forward. With this difference of friction attainable by the action of electricity, Mr. Edison saw at once that he could produce precisely the same mechanical results as by the electro-magnet.

The mechanism of this substitute for magnetism may be varied in a hundred ways ; the simplest form, however, may be thus briefly described : a clock-work is made to revolve a flanged metal drum. This drum carries over its surface a

continuous strip of the chemically saturated paper, not too moist. Pivoted at right angles with the drum is a lever of brass, with the free end projecting slightly beyond the centre of the drum; through this end an adjustable screw with platinum or lead point is made to rest upon the paper strip, thereby supplying a frictional surface. To increase this friction to any desired extent consistent with the tenacity of the paper, an adjustable spiral spring is placed under the lever to draw it downward upon the drum (the pivot of the arm being double-acting permits this motion also). Two adjustable stops confine the movement of the lever within any desired limits. It will be seen that the revolving of the drum will carry the lever against the forward point by means of the great friction imposed by the pressure of the lever point upon the paper. A second adjustable spring is now made fast to the lever to pull it backward against the friction, but being so adjusted as to not quite overcome it, the lever remains against the forward point. The circuit is now made through the paper from the lever to the drum, and instantly the friction is destroyed, and the lever drawn back by the spring against the back stop, remaining there until the current is withdrawn, when the constant forward motion of the drum as instantaneously grapples the point and carries it forward.

Here, then, we have all the functions of an electric-magnet for telegraphic purposes. This is regarded as Mr. Edison's greatest achievement, and one destined some day to prove of immense value. Its extraordinary delicacy may be appreciated when it is stated that in the case of one experiment it was made to give telegraphic signals through 70,000 ohms. resistance by means of a battery current that through that resistance would not record a trace of itself upon paper steeped in a saturated solution of iodide of potassium.

The electro-motograph telephone is an invention based upon the above described principle of action, and is now demonstrating the marvellous range of action of this wonderful discovery, by transmitting the full compass of vocal and instrumental vibrations over an ordinary telegraph wire 200 miles in length, reproducing the tones with great accuracy. The vocal vibrations are converted into electrical impulses thus: A brass tube, six inches long, two-and-a-half inches in diameter, having a mouth-piece at one end, and a thin metallic or mica diaphragm stretched across the other end; in the centre of this diaphragm is fixed a delicate elliptic spring, having a platinum face. Through this spring is passed a cushion of felt, the object of the hole being to prevent rebound. Immediately in front of this is placed an adjustable

screw with platinum contact-point. The diaphragm being connected with the line, and the adjustable point with the battery, when the air-waves are thrown into the tubes from a voice or a wind instrument, the diaphragm responds in unison, and at every outward movement comes in contact with the battery point, thus completing the circuit, and of course breaking it again upon its receding from it, the whole constituting a key responsive to the vibrations of the voice instead of the touch. The electrical impulses, thus passed over the wire to the distant end, comprising precisely the same number per second as the air-waves which set them free, are made, by means of the electro-motograph, to vibrate a sounding-board a like number of times, and thus produce the original air-waves or sound.

Mr. Edison's next invention was to perfect a speaking telephone, which reproduces a human voice over great lengths of line, with marvellous accuracy and distinctness, by means of which conversation is carried on with great facility. Reiss (a German), Mr. Edison, and A. Graham Bell are the only persons who have ever successfully grappled with this problem. Reiss, in 1866, succeeded in transmitting musical tones and some spoken words. Edison and Bell began experimenting in this direction about the same time, and each have succeeded in producing that which is worthy of them. Bell's apparatus is the beautiful realization of a theory, but too receptive to outside or foreign electrical influences to be effective in their vicinity, and it is just there, in large cities netted with electric circuits, that the telephone is of value. Edison, using the regular battery, has a direct force commensurate with the work to be done, and the foreign influences to be overcome, and can thereby give the volume of sound, and obtain the freedom from confusing effects, which brings effectiveness, and marks his telephone with the practical stamp of all his inventions.

Mr. Edison's inventions in regard to electric lighting are of so recent a date that comment is needless.

MANY women complain of feeling tired after a short walk, whilst they are really carrying a weight which would soon tire a strong man. Their waists are encircled with a belt or hoop, to which a load heavier than a felon's chains is attached, and the shoulders and chest are compressed by an additional burden. Breathing is laboriously performed, and the contents of the trunk and pelvis are thrust down with a force which, if represented in pounds, would occasion considerable surprise. It would be a matter of great interest if medical men would ask their female patients to ascertain precisely the total weight of the clothes they wear in-doors and out.

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

CHAPTER III.

OF THE BRAIN AS THE ORGAN OF THE SOUL.

In asserting that the brain is the organ of the soul, mind, or whatever we may please to call it, it is hardly necessary, now, to caution the reader against supposing that the brain is the positive principle of the mind or soul. It is but the instrument, or condition, without which the active principle, whatever it be, is inefficient. It is that part of the body on which the mind in a certain active state operates, and which must have a predisposed fitness to be acted upon.

That the proper function of the brain is not the mere support of the lowest degree of organic and sensitive life, is sufficiently proved by the existence of imperfect beings—children who have been born without heads (*ακεφαλοι*) and who have yet fulfilled for a short time the more essential functions of animal life; but such *ακεφαλοι* have never betrayed the least symptom of a higher intellectual life.

That however the brain is the organ of mere intellectual existence is not to be proved diffusely here, as this is the common notion, and not peculiar to the doctrine to be here stated. It is, however, evident, as well by the study of comparative anatomy, according to which it appears that the brain of animals increases in proportion to their advances towards mind or intellect—and this assertion Dr. Gall professes to confirm by a collection of wax preparations illustrating this progression—as by the cases which so frequently occur in the practice of medicine, of wounds, blows, &c., by which the mind also is injured.

Sömmering* first affirmed that the relation which is found between intellect and brain, lies in the quantity of brain compared with the size of the animal; but this is incorrect, for the canary bird has, in proportion, more brain than man. Then he qualified his position, and asserted, the dignity of the animal to be found in proportion to the size of its brain in comparison with its collected nerves, and thus expressed, it will be found tolerably accurate; but even this rule is insufficient; we must

* An anatomist of high repute for many years at Mayence: within a few years he was invited to Munich as member of the Royal German Society, established there by the King of Bavaria.

have recourse to a consideration of the distinct parts of the brain, and then we shall find that the animal is advanced in intellect, in proportion to the size of the hemispheres of the cerebrum. This is confirmed by comparing the brain of man with that of other animals. On the contrary, those parts of the brain which seem to be devoted to the lower functions of organic and sensitive life, viz. those which are at the basis of the cerebrum and the cerebellum, are often found in a state of greater perfection in various animals than in man.

Against the assertion that the brain is the organ of the soul, several objections are advanced.

(1) The cases of *hydrocephali*, those whose heads have been filled with water, and who have yet retained their faculties. This objection supposes that the brain is macerated and dissolved in the water; and falls away if the supposition be refuted. The brain being, as has been shown, nothing but a folded skin or membrane, is susceptible of being unfolded without being destroyed. This takes place in *hydrocephali interni*, in whom water, being collected in the ventricles of the brain, by its expansive power unfolds the membrane of the brain, and presses against the internal surface of the skull. Dr. Gall attended several years a woman who had all the symptoms of water in her head, yet she retained her faculties; on her death he found four ounces of water in her skull, and it was on her that he first discovered, to his entire satisfaction, the expanded membrane of the brain. Gall considers the *hydrops externus* as comparatively rare, and advises physicians, in sawing the skull, to use the greatest precaution lest they cut the membrane at the same time; and it is to the want of this precaution, that he ascribes the mistake concerning this disease. He states as a symptom of the *hydrops internus*, the protrusion of the eyes out of the sockets, arising from the same expansion occasioned by the water. Life, therefore, may subsist for a certain time, though the brain is thus forced out of its place; for no substance is lost. Having, in a state of disease, discovered the membrane of the brain, Gall then proceeded to seek it in the fresh brain of a subject free from any disease in the head; and he declares that on repeated trials he has found it. In the only experiment which the writer of this account witnessed, a pipe was put into different parts of the convolutions or *gyri* of the brain, and by blowing, a sort of bladder was occasionally produced. The subject on which the experiment was tried had been taken from the body several days before, and was allowed to be unfit to give the experiment a decisive trial.

(2) A second objection is founded on the fact, that very

considerable parts of the brain may be destroyed, either by an external wound, or from internal disease, and the powers of the mind yet remain unhurt.

This objection is satisfactorily removed by the *duplicity* of the organs in the brain ; the sound organ on the one side being sufficient to fulfil its function, notwithstanding the destruction of that on the other side. It is found that the organs of sense and animal life are double, as eyes, ears, the muscles, &c. ; while those which maintain what more resemble a vegetative or organic life (as stomach, liver, &c.) are single. It is true, the lungs, kidneys, &c., may seem to be an exception, yet they are not, from their inequality, to be considered as completely double, and these organs form a transition from the lower and organic, to the higher and animal life.

Among the cases which Gall stated to show the possibility of life continuing after a partial destruction of the brain, was that of a clergyman who was under his care, and who complained that one half of his head was good for nothing, he could not think on that side, &c. He preached three days before his death, and on examining his brain, the side complained of was found actually mouldy ; the other side was in an inflamed state. Analogous to this are the well-known cases of Hemiplegia.

Against this notion of a duplicity of organs in the brain, the unity of perception and consciousness has been brought forward. But the analogy of the external senses is a sufficient reply to this objection ; the organ is not in the one case, any more than in the other, considered as the principle of sensation or perception, it is but the material condition of their exercise.

Gall digressed here concerning the use of the double organs ; it is enough briefly to observe, he is of opinion that only one eye, one ear, &c., is employed at a time ; and that these succeed each other in their operation. Probably, he said, the right side of the brain is the more active, as the right side of the body throughout, head, breast, eye, hand, arm, foot, &c., are generally the stronger. Eight-tenths of those, he says, who have a hump, have it on the right shoulder, as the muscles on this side are the most active and strong. He carried these remarks (without laying any stress on them) so far as to observe that, when a boy, he used to ask himself how it came that men seldom walk quite straight ; and that he imputed it to the successive use of each eye, by means of which the point of vision is changed.

(3) The argument derived from the cases of petrifications in the brain needs no particular answer.

CHAPTER IV.

OF THE BRAIN, AS A RECEPTACLE OF DISTINCT ORGANS.

It has already been said, that each convolution of nerve in the cerebrum is to be considered as the nerve or organ of some certain operation of mind ; that hence, each internal operation, as well as each external sense, has its own peculiar nerve and organ ; and that hence, the brain is not *one* organ of the soul, not a common organ for all the functions of the mind, but a receptacle for distinct organs.

Though this assertion is far from being new, for we find it in *Boerhave, Haller, Von Swieten, Schellhammer, Glaser, Jacobi, Sömmerring, Tiedemann, and Prochaska*—and the Academy of *Dijon* has even made the seat of these organs the subject of a prize dissertation—still it is necessary to state the proof of this plurality of organs, which lies in the following observations and reasonings.

(1) Gall first urges, the sense of fatigue arising from the mind being long employed on one subject of contemplation ; and the relief and delight we experience in variety. This is analogous to bodily fatigue, which arises, not so much from a general exhaustion of muscular strength, as from the partial use and pressure of the distinct muscles of the body. When we have been long sitting we are relieved by standing ; and the bed-ridden find ease by a change of posture. That mental exercise is analogous to that of the body, as well in general, as in respect to the different kinds of employment, is very strikingly apparent. Every man, who is habituated to a life of study, knows, that after having spent hours in reflecting upon an abstract idea, or in labouring to analyse an intricately compounded problem of science, when he feels exhausted by the intenseness of his study, if he take up a work of fancy or taste (nor do I mean here the idly taking up a book that neither requires nor allows of attention, but a work demanding, in the perusal, no less energy of mind, though of a different kind, than a scientific disquisition), he will find himself as fresh to the task, his comprehension as lively, his attention as ready, as if just arisen from the healthiest and most invigorating sleep. It has been said of some hard students, that they knew no rest but in the change of object ; and we see that children never tire in their sports ; partly (no doubt) because they are restrained by no laws of decorum from indulging in the utmost variety of posture and motion ; they bring every muscle of their bodies into play ; the vigour of their youthful frame soon exhausts each particular organ, but instinct leads

them unconsciously to the easy relief; hence the restless impatience, and ever changing pursuits of childhood, equally apparent in the exercises of both body and mind. Let it not be said here, that this diversity of organs, which is supposed to exist in the brain, destroys the unity of the mind itself, for this argument is destroyed by the analogy here pointed out. It is *one* will which sets every muscle in motion, as well as *one* mind which acts in every operation of intellect; in both cases the mode of action is alike incomprehensible, and yet, where we have similar phenomena, it is but reasonable to suppose that the modes and principle of action are also similar. The complete analogy between the affections of body and those of the mind, compels us in all explaining theories or hypotheses, to suppose like impulses and adopt like language. The body longs for rest after much and varied labour, as the mind languishes for repose after active enjoyment. Hunger and thirst, repletion and satiety, are alike common to both. In most cases we know the seat of the bodily affections, as we know the parts devoted to the functions of life. And we know too that the mind, however immaterial we conceive it to be, has still a material seat, and that no simple homogeneous mass, but which exhibits a most delicate and complicated organization.

(2) Shall we persist, therefore, in considering this organ as one and indivisible, in spite of appearances, more particularly when we find that this organ, supposed to be one and simple, produces many and compound effects? Let us suppose the brain to be the one simple organ of mind and all its faculties; wherever we find any one faculty in a state of high energy, we suppose the organ also adapted to produce this energy. But how does it then happen that the same person is remarkably deficient in other faculties equally dependent on the same organ? If we think the brain to be in any way an instrument, it cannot be both weak and strong at once. But if it be the receptacle of many organs, they may be as infinitely diversified as the actions and powers of man. This argument receives greater force if applied to the brute creation, who evince also diversity of character, who have also a curiously framed brain, and to whom we do not ascribe a moral character, a freedom of the will, which so intrusively encumber our speculations concerning man. Whence are some of our domestic animals cunning, and thievish, and resentful? Why are others generous and grateful? Why are some kinds of dogs particularly susceptible of instruction and of affectionate attachment? We are told it is their nature, their instinct; but surely their instinct is not a prin-

ciple, but an effect of their organization; and if this organization lie anywhere, we may presume it lies in the brain. In like manner, the diversities of character in the same individual at different periods of his existence add force to the supposition of distinct organs, which grow to maturity and decline.

(3) There is a third argument which is founded on medical experience as well as general observation; the brain is susceptible of being partially affected by disease, wounds, &c., the consequence of which has been the loss of certain faculties and powers of mind; and insanity very frequently assumes the shape of a partial disease. Instances will be given hereafter.

The notion thus supported explains many of the common phenomena of life, viz. :—

(a) *Watchfulness*, which is that state in which all the organs of animal life are at the command of our will.

(b) *Sleep* (that is, healthy and sound sleep), which is that state when all the organs of animal life are at rest—the organs of organic life are distinguished by never tiring.

(c) *Dreaming*, which takes place when some one or more of the organs of animal life are in a state of activity, while the others are at rest. The activity of these organs awakens the consciousness of the others. Consciousness appertains to all organs, and has none of its own: hence there is no dream without consciousness, however we may forget our dreams. During disease there may be dreaming without sleep, owing to the disordered activity of certain organs; of this kind is *delirium*. In a state of *somnambulism* the whole vital energy is concentrated in certain organs, while the others entirely rest. And in the same way are we to account for the high concentration of power, the heightened sensibility, and the sudden bursts of intellect, and the ecstasies of a disordered frame.

(d) Lastly, confirmed madness, or that disorder which consists in certain false notions and conceptions of things, which lies in the power of volition being lost over certain organs of intellectual life; and this arises from those organs—it matters not how—being in an highly excited or irritated state.

Such are the arguments *à priori* in favour of distinct organs in the brain; they can be confirmed only by those distinct organs, or at least their site, being pointed out in fact. And in this lies the science which Dr. Gall professes to have first discovered and made known to the world. I have used the term *science* here, not in its proper sense, but vaguely, as we use it to express any knowledge, or any probable opinion founded on observation. The physiologist knows very well

on what evidence his theories rest, as to the more obvious and palpable functions of animal life, and will, in respect to Dr. Gall's speculation, be content with proof as strong as the nature of the case admits, even should it fall short of the evidence which some departments of his science afford. He will not expect that the organs should be laid before the eye, in like manner as the muscles of the body may be laid open. He will be content if any uniform appearance justify our supposing an organ; and if the result of a long observation of this uniform appearance be the detection of a certain relation which it bears to the phenomena of character, he will adopt, as a matter of opinion, what may never be scientifically demonstrated, being always guided by analogy, the sole basis of experimental deductions.

The physiologist has observed in the animal creation, that the nerves of those animals which are distinguished for smelling, seeing, hearing, &c., are marked by being numerous and large, evincing a more elaborate development. And having been accustomed to see the olfactory, optic, and auditory nerves in animals *proportionally* large with the senses they severally furnish the individual with, he will draw the general inference that *wherever any organ is met with in a higher state of development, there we may expect to find the power dependent on it in corresponding energy.*

GEORGE COMBE.

PHRENOLOGY AND THE SCRIPTURES—RETIREMENT FROM THE LAW.

In the early part of 1836, the Chair of Logic in the Edinburgh University being vacant, Combe determined to offer himself as a candidate. There were ten candidates for the appointment, but Sir William Hamilton was, from the first, the most prominent amongst them, and was in the end the successful one. Combe had no doubt that Sir William would be elected, but he set energetically to work and procured testimonials from all parts of the globe. The contest excited a great deal of public interest, and in Edinburgh feeling on the subject ran very high. It was thought at first that Combe would not be able to secure the suffrages of even one member of the Council, but Dr. Neill, a man of broad sympathies, took up his cause, and only required to be satisfied on good authority that his doctrines were not opposed to Christianity. He accordingly submitted the "Constitution of Man" to the

Rev. Professor Alexander Duncan (author of a work on the "Origin and Existence of Moral Evil"), with the request that he would favour him with his opinion on this point. Professor Duncan, in reply, explained that he saw no discrepancy between the fundamental positions and principles of phrenology and what he had been wont to believe on divine testimony. He at the same time professed himself a convert to the new science. The letter was handed to Combe by Dr. Neill, to whom his reply was addressed. It gives a clear exposition of Combe's views with regard to the relation of phrenology to the Scriptures.

"My own views," he says, "are the following: There are three questions which it is here necessary to distinguish and to treat separately, viz. :—

"1. What facts and doctrine in phrenology are conformable to nature ?

"2. What are conformable to right interpretations of Scripture ?

"3. What are conformable to the standards of any particular church, the Church of Scotland, for example, or that of England, or that of Rome ?

"I assume it is a fundamental principle, that there cannot by possibility be any discrepancy between real facts in nature, or sound deductions from them, and right interpretations of Scripture ; because the God of Nature and revelation is one ; He is the fountain of truth and wisdom, and His works and word cannot be discordant. In directing my attention, therefore, to nature, I never once imagined that if I discriminated truth, I could be deviating from Scripture, nor can I conceive this even to be the case.

"I regard revelation as a sacred subject, which ought not lightly to be brought into collision with philosophy. This may be done in two ways—by adducing ill-observed or incorrectly-interpreted natural phenomena as evidence against revelation on the one hand ; or by advancing erroneous interpretations of Scripture as objections against indubitable natural truths on the other. Many sceptical writers have been guilty of the first ; while the Roman pontiff and cardinals who condemned Galileo, and also the religious authors who in our day denounced geology as inconsistent with Scripture, are chargeable with the second of these errors.

"It appears to me to be more advantageous to investigate nature by herself first, and to proceed to compare her phenomena with Scripture only after being certain that we have rightly observed and interpreted them. By this method we

shall preserve our minds calm and unbiassed for the investigation of truth, we shall test nature by herself, which is the proper standard by which to try her, and we shall avoid bringing discredit on revelation by involving it in unseemly conflicts with natural phenomena.

"To be able to discover in a sound and satisfactory manner the relationship between natural truths and revelation, the investigator should be critically acquainted with both. In reading the attacks made by serious persons who are ignorant of geology against the discoveries made in that science, you must have occasionally been convinced that, in so far as they had the power, they were injuring, while they intended to serve, the cause of religion; because they were denouncing as subversive of revelation, facts, which could not possibly give way before any form of argument, seeing that they were founded in nature. The same error is committed every day in regard to phrenology. Religious persons attack certain statements as false which are indubitably true, and only bring obloquy on their own cause when they imagine that they are overwhelming the advocates of the new science.

"It is rare, however, particularly in the case of a new science, to find an individual qualified by his knowledge of science and Scripture to compare them advantageously. The mind of the successful explorer of nature is generally too closely and ardently directed towards her phenomena to render him equally clear-sighted and zealous in his interpretations of Scripture.

"Both objects, therefore, will be better accomplished if he who takes the lead in interrogating nature shall confine himself to that province; and if another individual possessed of a clear, calm, and unbiassed understanding, who has made theology his study, shall follow in his track, detecting his errors when he has fallen into any, yet recognising and embracing all the truth which he has brought to light,—and shall then proceed to compare this truth with revelations, with the single and upright purpose of discovering their harmony.

"Entertaining these views, I have on principle confined myself to the investigations of nature, never doubting that, in so far as I may have discovered truth, Scripture will be found to harmonize with my doctrines. If in any instance I have observed or interpreted erroneously, I shall be most anxious, on this being pointed out, to renounce my errors. But I hope it will not be imputed to me as a fault that I have not discerned also the relations of nature to revelation, regarding this, as I certainly do, as more properly the duty of individuals better qualified than myself for the task.

" There is another distinction which is too often overlooked. All Christian churches are agreed in regard to the import and obligation of the moral precepts of Christianity, and it is only touching points of doctrine and Church government that they differ. Now phrenology, as a mere human science, comes into direct relationship only with the first—the practical precepts—and it has generally been allowed by those who have attended to the subject that no mental philosophy in existence can be compared with it, not only for its exact accordance with this great and important department of Christianity, but for the power with which it demonstrates that nature is framed and adjusted on the principle of enforcing by positive sanctions the scheme of Christian morals.

" I very respectfully maintain, therefore, that phrenology, and the deductions which I have made from it, are in a remarkable degree in harmony with all the points on which the Christian world in general is agreed ; and when you consider that the Logic Chair is one, not of theology, but of science, and that, by the constitution of your university, the class may be, and generally is, attended by students professing a variety of shades of doctrinal belief, it may well be doubted whether this certain harmony between the principles of phrenology, and those Christian principles in which all the students are agreed, be not a decided recommendation of it to the patrons.

" The third question before stated, or the accordance of phrenology with the standards of the Church of Scotland, is the only one that remains to be considered. If there be harmony between the constitution of nature and the doctrines of phrenology, and also between the moral precepts of Christianity and these doctrines, which there assuredly is, it would be strange indeed if discord were discovered between them and sound Christian doctrine. Assuming, then, that the standards are correct deductions from Scripture, it is a fair presumption that they and phrenology do also agree. But as philosophy is addressed to men of every variety of faith, and as I appear before you exclusively as a philosopher, I humbly urge that it is the duty of the divines of each church to adjust the relations between their own standards and any particular philosophical doctrines, if true (and if mine be untrue, I shall cheerfully abandon them) ; and that the members of the Church of Scotland are not entitled to insist on your rejecting my claims to a philosophical professorship merely because they have not taken the trouble to discharge a duty incumbent exclusively on themselves. I am confirmed

in my conviction of the soundness of the course which I have adopted in avoiding all doctrinal discussions in my printed works by a fact which cannot be generally known. I have received letters from several excellent and ingenious friends, well skilled in theology, on the relation between doctrinal Christianity and phrenology, reconciling them, but no two of them agree in the manner of doing so; each proceeds according to his individual views of Christianity, and according to his individual cast of mind.

"Professor Duncan's views, although highly ingenious, differ from them all. This satisfies me that the time is not yet come, and that the men have not yet appeared for doing justice to this great subject; and perhaps they will not arrive until both revelation and phrenology shall have been contemplated under broader and stronger lights than are yet possessed, and which, I cannot doubt, will at last bring them into complete harmony. Any attempt on my part, therefore, to enter on this question at present would prove unsatisfactory to myself and unprofitable to the public. Probably a report from a committee of first members of the church, after phrenology shall have been fully studied by them as a science, will be necessary before the public mind will be thoroughly satisfied on the subject, and I should allow such a committee several years for deliberation. But this affords no reason why the progress of truth should be arrested in the meantime; why a doctrine founded in nature, and admitted by many sound theologians to be undeniably in harmony with practical Christianity, should be excluded from your university; and why I should be held forth as an enemy to religion merely because certain of those who take an interest in that sacred cause have not yet found it convenient to study the two subjects and deliberately to compare them. If I advance only doctrines founded in nature and in accordance with Christian morality, I am entitled to the benefit of the presumption that they are also in harmony with all sound doctrinal interpretations of Scripture. If any of my views are at variance with nature or Christian morality, I am ready to give them up. You are aware that my works on phrenology have obtained a very extensive circulation in this country, in America, and on the Continent, and that my lectures have been numerous and respectably attended. Is it credible that I can have been teaching doctrines hostile to Christianity, and yet have been thus cordially received? I very respectfully maintain, and you as a phrenologist are capable of judging of the point, that my whole doctrines are much more obviously in accordance with Christianity than the

philosophical theories of Mr. Stewart and Dr. Brown, which are not generally objected to by the Christian public. In my 'System of Phrenology' in particular, which contains all the principles of the science that would be embraced by the Logic Chair, there is not a view that any reasonable Christian can object to.

"And I am ready to pledge myself, if this should be any satisfaction to the patrons, not to go beyond the contents of that volume in teaching logic on phrenological principles in the university.

"They have a guarantee for my sincerity in this assurance, in my offer to resign the chair on their requisition to do so.

"To you who understand phrenology, I need scarcely add that the very clearness of the light which it throws on the human faculties, their objects, and applications, would afford no small security against any professor abusing it in teaching dangerous doctrines; it would enable the students instantly to detect, to expose, and refute the errors of their masters. Allow me, in conclusion, to draw your attention to the fact that the late Rev. Dr. Andrew Thomson attended a course of my lectures on phrenology in 1822 or 1823, and survived the publication of the 'Constitution of Man,' a copy of which I presented to him, for nearly three years; and although he conducted the *Christian Instructor*, and was a zealous, ready, and powerful writer, vividly alive to the purity of the faith which he espoused, yet he never published a word against that book.

"I sat for several years in his church, and was personally acquainted with him, and yet I never received even any private remonstrance from him on the subject.

"Further, Dr. Chalmers published his 'Bridgewater Treatise' several years after my work had appeared, and although the subjects in his book and mine are closely analogous, he has stated no objections whatever to my views, which is quite unconceivable if he had regarded them as dangerous and unfounded in nature, and been prepared to refute them. Now I very respectfully submit that it would be unjust to presume against me, without evidence and without argument, that my facts and deductions are erroneous and at variance with Scripture, and on this presumption alone to exclude me from the Logic Chair. Instead of enjoying the natural presumption of innocence, which is allowed even to malefactors until they be found to be guilty, the rule is proposed to be reversed in my case. Some religious men contend for my exclusion on the bare possibility that I may, after the matter is investigated, be found to have committed heresy. They urge my exclusion

without any responsible accuser having appeared against me, without a trial, and of necessity, therefore, in opposition to justice. I can only appeal to the common sense and graver feelings of mankind against such proceedings.

"I observe a work by Mr. Scott, of Teviotbank, in opposition to the 'Constitution of Man,' announced as preparing for publication. But I can hardly anticipate that he will consider himself called on to supply the supposed omissions of the two learned doctors of divinity above named. If, however, I shall be mistaken in this, and if Mr. Scott shall make any attempt to show that my work contains doctrines inconsistent with the principles governing Christianity, it will be sufficient for me to remind you and the public that Mr. Scott is a layman, that he enjoys no reputation for theological learning, and that his opinions, therefore, are not of authority to decide the question. Besides, you are well aware that Mr. Scott strenuously opposed the views contained in the 'Constitution of Man' when they were discussed in the Phrenological Society prior to their publication, and that the public voice in this country, in America, and on the Continent has pronounced an opinion of the work widely different from that entertained by him."

As already stated, the result was against Combe. The election took place on July 15th; the debate in the Council was a stormy one; ultimately Sir William Hamilton was elected by 18 votes to 14 given for Mr. Isaac Taylor, the author of a number of metaphysical works, and three for Combe. The result of the election did not in the least disturb him, and on the day after it took place he attended an examination of the brain and skull of Sir Robert Liston, who had been a distinguished linguist and an ambassador at various courts, but who for fourteen years previous to his death saw spectres, and during the last four years of his life entirely lost the use of language. Combe discovered that there was a small cavity in the left corpus striatum, about an inch back from the organ of Language, into which there had been an effusion of blood; this, being absorbed, lined the cavity—about a quarter of an inch in diameter—with a yellowish membrane, whilst the brain presented appearances of general chronic inflammatory action.

At the end of this year (1836), having just completed his forty-eighth year, Combe retired from the profession of the law, having determined to devote the remaining years of his life entirely to study and the propagation of phrenology. With his own and his wife's private income, together with the receipts from his books, he was in the enjoyment of about

£1,000 a year, which he thought enough for two persons "of moderate habits, not given to ostentation, and without a family."

THE STUDY OF PHRENOLOGY MADE EASY.

CHAPTER VII.

Vital and nervous force are stock in life's labour, and the more we possess the better, if rightly directed and used. These are the qualities that make a man a man. In proportion as we lack these two qualities do we lack the essential qualities of the man, for they are foundation elements, and essential to life and action. As we lack these two forces we fall short of being men, no matter how well formed the body and head may be. Frequently children begin life with ample stock, but waste and weaken both in the ignorance and follies of youth, and when the time comes for them to take their place among men in life's labours, they are imperfect men and women, and fall behind in proportion as they lack vital and nervous force. Thousands of men have strong desires to do what they cannot do, simply because they have lost the stamina to work with. It belongs to nature for a man to do all that he wants to do, and to retire at night satisfied with his day's work, but in order to do that he needs to be well-born, well-fed and reared, and come into manhood without foolish notions and debilitating habits, and possessing all the virtue and all the forces of his nature in good working order. Ignorance of the functions and organs of our bodies, especially while growing, allows us to waste a vast amount of vital stock which results in weakly, half-developed men getting through life as best they can. Prodigality of life-force is one of the greatest foundation evils of the human race, for if a person is prodigal of life, he is prepared to be prodigal in many other ways.

The remedy for this terrible waste (so far as there can be any) is right training, and proper instruction and information at suitable times.

The sins of ignorance—which ought not to exist in this nineteenth century, in the midst of so much intellectual and moral light as we profess to have—are without number. Self-study is the last thing attended to, when it ought to be the first. Children cannot begin too early to gain information about their bodies, and the organs and functions of which

they are composed, and how to use, train, and restrain them. Many a man is ruined in health before he knows it, because of his ignorance of those things about which his parents and teachers ought to have enlightened him. Lessons in physiology should be among the first that are taught in school. What lesson is more important than to *learn how to live*. To learn to do wrong and violate the laws of life, and then learn how to live and obey the laws of life, places many impediments in the way, when the right lesson might as well be learned first. "Knowledge is power." When a lad is taught in the beginning how to live and obey the laws of life, he will be much more likely to do right than as though he were ignorant as to how he ought to live. By all means let children be taught physiology as practically applied to themselves.

One great want of the age is more complete nervous force. Very many good efforts are abortive for the want of nerve force to complete the plan, and carry it into complete execution. To plant even good seed in barren soil means failure. So good ideas, with weak nerves to enforce them, also means failure. Many can get up an excitement, but cannot sustain one, or control themselves in the midst of it. They are very good where there is no temptation, but cannot resist a strong impulse. The consciousness and the will power of many are very imperfect from a want of knowledge of their minds, and what goes to make perfect consciousness or will. Frequently, one or two faculties or inclinations monopolize both the consciousness and the will. Very few know what a perfect mind, or a perfectly developed mind is, and a still less number know what is a true legitimate use of all the faculties, and a less number still have an equal control over all their different powers of mind. Ignorance about the mind is manifest on every hand. Much more might be known about the mind and body if we went the right way to work to study them. What nature has made easy for us to learn we have made difficult through ignorance or prejudice; hence some resort to vivisection to try to find out what could be learned by the open book of nature. Our ignorance makes many things in nature very complicated and even mysterious, when a true student of nature can read and understand as he runs.

The study of mind as connected with the nervous system has been made much more difficult than need be because people would not use their eyes instead of thinking without seeing. Sight is a good guide to thought. Ever since brain, nerve, and mind have existed, the one has been dependent on the other for manifestation, and yet it has taken a long time for man to find it out. That each nerve, especially of the

brain, has a particular function to perform has been a very difficult lesson to learn. It was more easily learned with reference to the five senses, but difficult to admit as applied to the other senses of the mind, and yet if the one is a fact the other must be.

Those who object to the phrenological doctrine that the different mental faculties or senses are dependent on certain nerves of the brain, freely admit that the brain is the organ of the mind, and that the intellect is manifested through the frontal lobe, that the domestic affections are manifested through the occipital lobe, and that the selfish feelings and passions are dependent on the basilar brain for action, and that the moral and religious faculties are manifested through the coronal brain; and yet they have no more proof for their belief than the phrenologist has that the different faculties have special nerves, with a distinct locality as organs to act. On what ground do they admit that the brain is the organ of the mind, or that the four divisions of the mind have their several localities? whatever it is, the phrenologist has the ground for his opinion.

The phrenological doctrines, that the brain is the organ of the mind, that the mind is composed of distinct faculties adapted to the various necessities, conditions, and relations of man, that these different faculties have their definite and relative locality in the brain, have never been controverted, and inasmuch as they are foundation principles the student may feel quite sure that he has truth on his side in the study of phrenology.

We now come to the question: What are the advantages to be derived from a study and knowledge of physiology and phrenology? By a study of physiology we learn about the organs and functions of the body. Anatomy aids us to understand the structure of the different parts of the body, and the pathology of their diseased condition. If man desires health, strength, and long life he cannot know too much about his physical structure, and the laws that govern it, and how to use the powers of the body to the best advantage. Many constitutions are broken, the functions weakened, and the health permanently impaired from sheer ignorance as to how to take care of them. A knowledge as to how we ought to live should be among our earliest lessons before habits are formed that tend to debilitate and undermine the constitution, for when habits are formed they are liable to control in spite of consequences, because, although man is a reasoning being, he is the most unreasonable animal in existence. By physiology we learn about diet, exercise, rest, cleanliness,

thermal conditions, and how to regulate ourselves as to heart-power, lung-power, and the various secretions of the body.

Phrenology introduces us to all the faculties of the mind so far as they are discovered ; what they are for, how to use them without abuse or perversion, how to bring them into healthy action, and so combine their action as to secure the greatest amount of power and perfection of mental action and consciousness.

A knowledge of these two sciences combined aid us greatly in deciding before we love who to select and who not to select in marriage, for not only our own happiness, but that of posterity is much affected by the choice we make. Taking the condition of society as it is, perfect qualifications and adaptations are not abundant. If half of the race only were to marry, there would be many diseases and imperfections mixed up with them ; and as probably more than half of the race will marry, and that many diseases, imperfections, and derangements will be introduced into the family-circle, it stands us in hand not to make society any worse, or the family circle less felicitous. If we dealt with posterity as we would wish our ancestors to have dealt with us, we would not encourage diseased, debilitated, deranged, or even demoralized persons to marry, especially where there is any danger of propagation. If persons that have unfavourable hereditary tendencies must marry, then let them do it so as to lessen rather than increase the difficulty. It would be an insult to posterity for two persons with tendencies to insanity to marry, or two of consumptive tendencies to unite in marriage. Two persons with weak blood and constitutions, especially if they are cousins, do society more harm than themselves good if they leave posterity. Many other conditions might be mentioned that are unfavourable to marriage, but the above are sufficient as a warning, for if the principle be correct as applied to the more important conditions, they are equally correct in less important conditions. The more healthy and perfect cannot be blamed for selecting equally healthy and perfect partners, for they cannot be expected to take pity on those less healthy and perfect, or marry those more imperfect than themselves for the sake of bettering posterity at their individual inconvenience ; yet those less healthy and perfect cannot be blamed if they seek those more healthy and perfect than themselves. Besides, there is a great deal in blood, stock, and quality, for some are more highly organized than others. The same is true as to tone, quantity, and status of mind ; and phrenology is of great service in selecting the quality of mind and the kind of talents, sentiments, and dispositions that are desired,

for where circumstances are favourable for a full development of the mind, phrenology can be depended upon, whereas a person without a knowledge of it is more liable to mistakes.

It is unwise for both parents to have large perceptive faculties and small reasoning faculties. If the one has the perceptive the other should have the reasoning faculties. If both have the one class and not the other, their children will have too much of the one and not enough of the other ; but if one has the one class, and the other the opposite, there will be some chance of a proper blending of the intellectual faculties. The same principle would be true of other faculties. If the moral organs as a whole are weak, or if Veneration or Conscientiousness are small in both, the moral legacy of the children would be of small account. If both parents are wanting in Self-Esteem or Firmness, their children are born to serve all their lives, for they will be unable to take a masterly or responsible position, where authority and decision are required. Two narrow heads together make poor economists, and their children would make worse ones, and so the shape of the head, as a whole, as well as the different faculties, should be considered. It makes a great difference in the character as to where the brain is located. If both parents have a predominance of brain in any one portion, the children will have an excess in that part, and will be fated to the consequences. Most people rebel against the doctrine of fatalism, and yet many fate their children and whole families beyond their own control. The attainment of perfect manhood and womanhood is rendered very difficult, if not impossible, through ignorance of parental influence.

L. N. F.

It is a marvellous circumstance that the black man of Australia should have dropped upon the same narcotic principle (nicotine) as the red man of America. Pituri is a plant of Central Australia, not far removed from the tobacco plant. The leaves of the plant are chewed by the aborigines, who trade with it extensively. Chemical analysis shows that the alkaloid in which the peculiar poisonous properties depend is nicotine, the same substance to which tobacco owes its effects. Pituri is eagerly sought by the native Australians, not for the purpose of exciting their courage or combativeness, but to produce a dreamy, voluptuous sensation, such as is experienced by the opium-eater. It is often taken by the natives on their long marches to deaden the cravings of hunger, and to support them under excessive fatigue.

HALF-AN-HOUR WITH MY BEES.

The study of Life in all its forms is not only important as an intellectual pursuit, but exceedingly interesting. The study of bee life is very important, as it can be utilised in the better management of bee colonies, and as it must take place largely in the open air, gives innocent recreation and healthy employment, and, in addition, may be made the means of a very profitable investment.

To teachers and clergymen I strongly recommend this study: and as a first conversation on the subject, I will talk to your readers in my back garden, which, though confined as to space, is large enough for all the purposes of a small apiary.

Here we are, among the bees; and though the month be April, the bees might be under the impression that it is May: they are so busy.

Here is a "*skep*." It is old-fashioned, and, like all skeps, ill-adapted to our study; yet we can use our eyes and try our ingenuity even with it. Observe the bees running out of the doorway. Off they fly. Some are returning. They look brighter and larger than they did when they left. And no wonder, for they are full of honey, or loaded with pollen. They are increasing the wealth of the colony in honey or bread, or both, and they are glad. Here are no drones. It is early spring, and they are not required. We shall have a swarm in a few days, and then they will be needed. See, a bee has fallen on my hand; watch it. Why, two of its legs are combing the particles of pollen that dust its body from the hairs that have picked them up in flower cups, and now it is packing this dust in "baskets" providentially formed on its hind legs.

And now it mounts up into the air, whirls round our heads, falls on the flight board, and walks into its home. This collection of pollen, or bee-bread, proves that the hive is not queenless, and that she has already commenced her labours (that of egg-laying) for the season. But the *skep* is less adapted for observation than the bar-frame hive.

Here is a bar-frame hive.

I blow a few puffs of smoke in the doorway. This alarms the inmates. They fear their home is untenable. They run to their stores and fill their honey-sacs with food ready for a journey. We give them two or three minutes to do this in. We take off the hive cover, and observe the seams of bees covering their combs. How strange that the bees venture no

attack? Being gorged with honey, they are harmless. They cluster in thousands. I blow another puff of smoke among them, and take out one of the frames. The frames are much like a slate frame, filled with comb instead of slate, the comb being about $1\frac{1}{2}$ -inch thick. Here are thousands of honey-cells. I take it indoors for use. The bees will be able to spare it.

Taking out a frame nearer the centre of the hive, I find it covered also with bees. It is black over with them. I run my finger amongst them, moving some away. What do I see? Row after row of maggots—young bees in the caterpillar state. Some rows of caterpillars are smaller than others; they are younger. What is this large bee with long abdomen doing? She is hiding amongst the workers. She is the *mother* of all. There is no parent alive but she. All her family are orphans. But she continues her egg-laying. Once a mother, always a mother, till she dies. She does not *reign* over a kingdom. She is *not* a queen. She is a parent. Her family is a commonwealth. She works as hard as any. Her children, in turn, serve in the various duties of the hive. But I am anticipating. I must not now speak of *drones*.

Moving other bees from the comb, we observe many of the cells sealed over. We observe here and there small apertures through the caps of these cells. They are breathing holes for the pupæ. The crysalids progress in *their* growth, and they require ventilation. See, here is a larger aperture. The young bee is trying to cut its way through. I take a pin and help to remove its cap. See, it crawls out of its hole, and takes its first walk. What a strange being it feels! All is new to it. It smooths its wings. It is now lost amongst the others.

And here are bees in the cells head foremost—in empty cells. What are they doing? Evidently they are asleep. Let us rouse them up. I give them a tap with my finger. How they back out! How surprised they are at being disturbed! They venture no attack. They wonder what is the matter. They went to sleep in darkness, and now it is broad day-light.

Our half-hour is spent. In goes the slide. Wrap up the hive tip, put on the roof, and the next time we open a hive it shall be to "swarm" them. In the meantime they shall prepare for that event by increasing in numbers. I shall encourage them in this in ways that must be told another time.

Leyton, 1883.

J. WEBB.

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER III.

ANGEL—OR WHAT?

Although Undine—as Claus Bromm, from lack of a more authentic title, called the fair Perdita of the Devil's Bridge—passed a fairly comfortable night, yet she was so strange in her look and manner on the following morning, now talking wildly and incoherently, now laughing hysterically, and then as suddenly changing to weeping, that her hosts began to think her not in her right mind, and to fear she might be some escaped lunatic. It was therefore deemed proper to have instant medical advice, and Claus accordingly went in search of Dr. Bleichroder, his oldest and most intimate friend. He found him busy over his early coffee and the morning paper, and after hastily imparting to him a history of the past night, the two walked over to the Prediger House, which was only the distance of a few blocks away.

A shade passed over the Doctor's brow when he saw the patient. She was lying with closed eyes and deathly pale face, almost the picture of death. One hand lay upon the coverlet; it was beautifully formed, but terribly thin, and almost translucent. When he took hold of it to feel the pulse, the eyes of the patient slowly opened, and she gazed upon the strange form bending over her with a pair of lustreless blue orbs that looked like a couple of heavens set in a marble firmament.

"It only needed those eyes to add terror to such a face," thought the Doctor. They were of a hue betwixt the speedwell and the forget-me-not; sometimes they inclined more to the hue of the one, sometimes more to that of the other, according, as it would appear, to some mysterious motion of the soul. That, however, was a later knowledge.

Such was the Doctor's wonder at his patient's eyes, that he almost forgot to note the pulse. It was a weak fluttering thing, and hardly indicated as much life in the patient as the eye, which examined him with the curiosity of a child, although with the indifference that comes of weakness.

It was no ordinary physiognomy that they regarded, and Dr. Bleichroder was no ordinary man. Although he had passed his fiftieth year, the Doctor was by no means what would be called old-looking. Of medium size, rather slight than otherwise in build, he yet presented the appearance of a man possessed of uncommon toughness and power of endurance. His face, of a bistre-like hue, was deeply furrowed, somewhat perhaps by thought and emotion, a great deal by physiological disposition. His brow was broad and

rugged ; it was marked by two transverse indentations, and a deep perpendicular one starting from the root of the nose, and losing itself beneath a great Gallian bulge below the root of the hair. His nose was more than strongly pronounced ; it was of Slawkenbergian dimensions, stood out like the blade of a halberd, and was as red as a comet. Add to these characteristics small grey eyes, rather deeply set, shaded by bushy brows, black like the hair, but not like it, grizzled, and the Doctor's portrait is fairly complete. For the benefit of those whom it may interest—and there are those who pay more attention to the hand than to the head—let it be said that Dr. Bleichroder's hands were large, well-shaped, and as white as a lady's ; but, unlike a lady's, they were ringless.

When Claus Bromm's *protégée* had taken in the salient points of the Doctor's visnomy, she closed her eyes, as though the examination did not interest her, possibly however to re-examine it in the camera obscura of her brain.

The Doctor said they could not do better than continue as they had begun, keeping her as quiet as they could.

"You don't think she wants any medicine?" asked Bear.

"No, all she needs is rest and nourishing food ; let her take her fill of them, and nature will do the rest," said the Doctor.

When he called later in the day he found the English girl—as he preferred to call her—greatly improved in appearance. She had taken some light refreshment, and was more like a living being. In reply to his inquiries she said she was feeling much better, and exhibited not only a firmer pulse, but an approach to a more normal state of mind.

The Doctor enjoined upon her two nurses the necessity of keeping her very quiet, and not allowing her to excite herself by talking, especially, he added, about her own affairs. If she began to do so, the better plan for the present would be, if possible, to lead her off to some other subject. Meanwhile, he said, he would try to find out whether there was talk about town of any one having lost a daughter.

"They are a remarkable people, these English," said Bleichroder to Claus, after he had left the patient. "This morning the young lady seemed almost at death's door, hardly good for another twenty-four hours' life, and now, in less than six hours, she is as nearly as possible all right, and talks about wanting to get up : a remarkable people ! It would have taken a German woman a fortnight or three weeks to get over such a bout."

"Marvellous !" exclaimed the Professor. "To what do you attribute it?"

"To their eating good wholesome food and taking plenty of air for one thing, instead of mewing themselves up in close rooms, and eating all sorts of swine's-flesh abominations."

"They are a great people for out-door games and pastimes," observed Claus.

"Yes, and the women take part in them as well as the men. They

ride, drive, shoot, row, while a German woman simply keeps in the house, and suckles and sews. It all comes of the women having emancipated themselves."

"Ah, that," said the Professor, "I take to be Shakespeare's praise. It is through his intellectual influence that the claims of women in the scale of society were acknowledged in England, when, throughout the rest of the world, their position was not greatly elevated above that of the drudges in modern low life."

"That may be," said the Doctor, "but there's race in it too."

It need hardly be said that the news of an increase to the Claus Bromm family had quickly spread through the house, and that every one, the females especially, were, figuratively, dying to see the young lady who had come into the house "in such a questionable shape," and to know who and what she was. There was a romance and a mystery about her that excited their curiosity to the utmost pitch. Nothing that had been found upon her gave the slightest clue to her identity or origin. A purse without any money in it, and two or three valueless trifles, were all that her pockets contained. About her neck, but hidden from view, was a fine gold chain, to which was pendant, in jet, rimmed with gold, a bird bearing a heart in its beak. Her male attire was worn and patched. The coat, trousers, and waistcoat were of black cloth, threadbare, and evidently not originally made for their last wearer, having been roughly altered in size, and adapted to a smaller form. The Inverness appeared to have been shortened, and was patched and darned.

The day's rest, and a good night's sleep on the top of it, made a wonderful change in Undine's appearance. It could not be said that she looked like another person, but she certainly looked like a new edition "improved and enlarged," as the publishers say, for the nourishment she had taken already began to fill out her cheeks, and to send a little colour to them.

The Doctor's surprise and pleasure expressed themselves in a quiet smile, which lighted up his ordinarily grave features. He sat down for a minute or two by the patient's bedside and talked with her, but carefully avoided putting any question to her calculated to recall her troubles. His object was to find out something from her conversation and her look, or, as he would perhaps put it, her temperament. For he had a theory that, by a system of comparative pathognomy, not only a person's training and education might be told, but his descent traced; or, in other words, that the influences that have been at work in the formation of a man, including that of race, are indelibly stamped upon his manners and his features. He called it the science of Genetics.

"What do you intend to do with her?" asked Bleichroder of the Professor, as they sat together in the latter's room after his examination.

The Professor answered: "Return her to her parents if she have any, or to her guardians if she have not. I suppose she has run away from home, or what may pass for such; but what has brought

her to Kaiserstadt? that is the mystery; for she is as evidently English by her looks as by her tongue, and of no low birth either, I should think."

"If she is English," said the Doctor—punning, like Pope Gregory, upon the resemblance betwixt the words "Engel" (an angel) and English—"she cannot be lowly born."

"I could almost find it in my heart to wish that she may prove to be parentless and friendless, so that this humble home might be turned into a heaven by such an angel presence," replied Claus.

"It would certainly be a godsend to a house where so much child-love has so long gone a-begging," replied Bleichroder; "but our patient may not turn out so angelic as she looks. In the first place, she does not come into the house in the way that household angels usually do."

"No, I was the bearing mother," said Claus, with a quiet smile.

"Don't, therefore, build too much on mere angelic possibilities," continued the Doctor, smiling at his friend's witticism.

"What is your opinion about her, judging by your genetical art, for I suppose you have already applied it to her?"

"A little."

"Her face hides no wickedness, or I am no judge of men."

"You may be a good judge of men, and yet fail in your estimate of women: the rules of horoscopy are different in the two cases. No college can give you a diploma in the two sciences."

"Well, we shall see," replied Claus, "whether I judge rightly or not. I know it is a tenet of yours that where a woman comes, there evil enters, and I am not sure that it is not often the case, for the simple reason that evil follows us all, men as well as women. But in this case I am the more willing to believe good will result, because it happens during the first half of the month."

The Professor had a superstition about the division of the month which he had inherited with his broad back and easy good nature. It was the belief of the family—based, as was said, on long experience—that all misfortunes befel them during the latter half of the month, and all good fortunes during the first half. They were consequently called the "good" and the "black" fortnight respectively. Both his father and grandfather had died during the "black" fortnight, and he expected to follow their example.

Claus never planned new work during the black fortnight, nor went on a journey if he could help it. But he mused thoughtfully, and lucubrated much on death. It can hardly be said that he had the "blues" during these "black" days, being of too cheerful and equitable a disposition to give way to low spirits; but when his thoughts did run in a melancholy channel, it was generally during the latter half of the month. It was then also he was ill, if at all. In the first half he was cheerful, light-hearted, and well.

It was a superstition, perhaps a foolish one; but he was not the only man of thought and learning who has been subject to such fancies.

When the Doctor had gone, the fair Annette tapped at the door to inquire after the new-comer, or Zerafine's pet, as Wendel called Undine, because Zerafine had begun to show a little jealousy of her. Bear and Zerafine were busy examining some of their own garments to see what they could do for the patient when she should be well enough again to put on clothes; "For," said Zerafine, "you know we don't intend to let her go about with those masculine things on here, whatever they do in England."

Bear laughed, and said she should think not!

Annette broke into their plans by saying: "Don't cut up any of your clothes, Frau Bromm, or Zerafine's; I have got plenty of things I can spare, and I am sure I shall be only too glad. If the dresses are a bit too short, a tuck or two can be let out. Come down, and I will pick you some out at once."

Annette had wardrobe and drawers full of nice things, and these she literally ransacked, and threw their treasures on the floor for Bear to choose from. She was no miserly giver, selecting what she had cast aside, but bounteous as spring, showering everything in profusion, and saying, "Take."

"I have a great deal more than I can wear," she said, "and it is a pity somebody should not have the use of them."

Frau Bromm selected a few of such articles necessary for the building-up of a civilized young lady, and carried them upstairs, where they were duly placed by Undine's bedside, ready for her when she should awake, for she had again fallen into a doze.

Bear sat by the window of her bedroom, and watched. Towards evening Undine awoke and looked about the room. She did not see Bear, but her eye lighted on the clothes which were laid conspicuously upon a chair by the bedside. She looked at them wonderingly and half dreamily for some time, and then raised herself on her elbow. Bear now advanced to the bedside, and inquired how she was. Undine replied that she felt almost well, and was much indebted to her for her kindness.

"Do come and sit by me," she said, "and let me tell you how thankful I am to all of you who have been so kind to me."

Frau Bromm sat by her side, took hold of her hand, and bent down and kissed her.

"I see there," said Undine, pointing to the clothes, "another instance of your kindness, only they are too good for me; I do not deserve them."

"Don't say that," replied Bear, caressing her golden locks that clung in curls about her neck.

"Are they your daughter's?" asked Undine.

"No, dear, I have no daughter, nor child of any kind. They belonged to a young lady who lives in the house, and who sympathises with you very much. She sent them up for you."

"I should like to see her, and thank her for them. I can only give thanks now; some day I hope I may be able to do more to repay all of you for your kindness."

"Is it not thanks enough to know that we are doing you good?"

"But how do you know I deserve your kindness? How do you know that I am any good? Your husband—I suppose he is your husband—found me dressed in man's clothes on the bridge; at least, that is where I remember being last. What good can you think of me after finding me in such a state?"

"All good, so long as we know no evil, my child."

"I wish," said Undine, putting her arm round Bear's neck, and laying her head on her shoulder, "I wish you were my mother."

"I will be, if you want a mother," replied Bear, her eyes appearing like watery moons.

"I do indeed," said Undine, weeping.

"Have you no mother, then, dear one?" asked Bear.

"Yes, but she and father have disowned me," replied Undine, each word coming after a sob.

"Disowned you!" cried Bear. "A mother disown her child!"

The good woman may have read of such monstrosities in the records of olden time, but it had been beyond the epicycle of her brain to regard them as still possible.

"Yes," said Undine, when she could again command her speech; "I will tell you all about it."

"Not now," said Bear, caressing her cheeks; "not now; it is only distressing you to call up all these sad remembrances. Be calm now, and rest awhile, and you shall tell me afterwards, when you feel stronger." So saying the good Bear replaced the weeping girl's head upon the pillow, and kissed her cheek. "You may tell me one thing, however—what is your name? for I do not know what to call you."

"My name is Josephine Montessor," replied the patient; "I am called for short Fifine, but I should like best to have you call me 'daughter.'"

"I will," replied Bear, "and so will my husband; but he, because he found you by the river, has given you the name of Undine."

"Oh, that is very pretty; I should like to be called by that name. It would be like beginning a new life with a new name—Undine!"

"And do you want to begin a new life?"

"Oh, yes; the old one has been so sad, and so full of error. Oh, how much I have learned during the last few weeks!" she added, after a pause. "I see so differently now that I want to begin anew at once; and I can't do so better than by putting on that dear young lady's clothes, and ridding you of an invalid."

"But do you think you are strong enough to get up?" Bear gently objected.

"I am quite well now," Fifine replied.

Frau Bromm interposed no more objections, and in a few minutes the fair English girl—for she looked more like a girl than a woman—stood arrayed in Annette's habiliments. If she had looked beautiful as she lay on the pillow, she looked like a perfect Hebe now. She had chosen a soft black silk dress, and for only ornament wore

a simple white tucker about her neck, and white cuffs. Her golden hair was combed back from her forehead without artifice or addition of any kind, and lay in curls about her neck, like sheaves of corn against a marble column. It seemed to frame her face in a bright aureole.

Just as she had finished her brief toilet, Bear entered the room again, and for a moment stood still in silent amazement.

"Why do you look so?" asked Fifine. "Don't you think this dress suits me?"

"Yes," replied Bear; "but I was thinking that you are a veritable Undine."

"Am I? I hope then I am one that may bring you good fortune and happiness."

The faithful Zerafine crossed herself when she beheld Fifine in feminine attire, and cried, "Herr Jesu!"

Fifine spoke very little. She sat and watched the two women at their work; and, for a wonder, Zerafine had not much to say. Presently she began to busy herself about supper, and then the Professor came home.

Naturally enough he was astonished to see their patient up and doing well, and he did his best to make her feel comfortable and at home. When they sat down to the frugal meal that Zerafine placed on the table, he encouraged her to eat, chatting pleasantly all the time. He called her "My child," and "Meine liebe Undine," just as if she had grown up with them. He managed, too, unperceived, to give Zerafine a word, or a wink, or what was as good; and when the dishes were removed, she placed a bottle of Burgundy on the table, which she had got from Nussbaum for the occasion. Claus filled the glasses, and scented the bouquet with the air of a man to whom a bottle of good wine is no rarity. Bear showed rather a wondering pair of eyes, as though she would say: "What, for an Eldorado, has he now found, this good man of mine?" But that was all. She raised her glass, and said to Fifine: "To the happy days that shall yet come;" then put the glass to her lips with a smile, and withdrew it in tears. Then the electric touch of sympathy brought tears to Zerafine's eyes, and at the same time the well-springs of Undine's tears found an equal level. The Professor—the wily man—saw the danger he was in, and took a pinch of snuff. A sneeze in time has saved many a soft-hearted man.

Then, to change the current of thought, he told the anecdote of the student who was called up by the professor of theology, and asked to explain who were the twelve apostles, and who described the properties of twelve tankards, so-named, that were in the Kneipe he frequented more than the lecture-room. This always created a laugh; Fifine smiled, and then looked sadder by contrast.

"So sad a look," mused the Professor, "on the face of so young a woman seems like a reproach to heaven." He remarked that she did not touch her glass of wine, and, telling her it was a lightener of care, he invited her to drink.

But she shook her head with a sad smile, and said she had vowed never to drink wine more, because of the misery she had seen it cause.

CHAPTER IV.

A BEAU IDEAL.

That same night, when Claus, Bear, and Fifine were alone, the latter opened her heart fully to her adoptive parents. Seating herself by Bear, she laid her head upon her shoulder; whereat the good woman's heart heaved with a great swell of emotion, as of a first motherly pang, and returned the endearment with a mute pressure of her hand.

"You are weary, child," said the Professor, taking her right hand in his.

"Not so weary as thankful and happy; I am so full of thankfulness that I do not know how to put it into words," replied Fifine.

"That is not necessary," replied Claus; "you shall love us as a daughter, and that shall be thanks enough; shall it not, Bear?"

Bear replied, "Yes, truly."

"And," he continued, slowly and half in soliloquy, "we cannot give you much of a home, as far as appearance goes: ours is a humble dwelling, and we have no riches to boast; but we can give you a place in hearts that have yearned too much for human love ever to cast it aside, or think lightly of it."

After a few minutes' silence, Fifine raised her head, and taking a hand of each in hers, she said:—

"Now that you have adopted me, and that I am going, under your guidance, to begin a new life, I must reveal my old life to you. You ought," she added with a sad smile, "to have required my story first."

"But that would not have been in accordance with the good old rule of hospitality. We are simple people, and take things in simple faith, as though we would have wedded with the Swan Knight," said Claus, with a smile. "We try to take things somewhat in the antique style, believing in the words of your great English poet, that 'Providence shapes our ends, rough hew them as we will!'"

"How fortunate," said Undine, "I have been in falling upon such people; but I suppose it is true, as I heard one of your good men say, that God, in good time, rounds his circles full out."

"That sounds like a saying of Pastor Gottschalk's," said the Professor.

"I don't know whose it is, but I heard it in the Dom last Sunday."

"It was Gottschalk you heard," exclaimed Claus. "One may know him by his words, as you know an English sovereign by its ring. Did it not do you good to hear him?" he continued. "I should have thought——"

"That it would have saved me from thoughts of self-destruction, you were going to say," said Fifine, finishing his sentence; "but I was hungry, and hunger in men and women is like the evil spirits in the Gaddarene swine; it drives them they do not know whither."

"Poor child!" exclaimed the Professor, stroking the small white hand that lay in his. "What was it brought you into all this misery?"

A troublous shade overspread the fair Undine's face at the question, and it seemed as if emotion were going to get the better of her, but she struggled against it, and said with quiet brevity:—

"It was my husband."

It would be hard to imagine anything that could have surprised the good Professor and his wife more than this simple announcement.

"Your husband!" exclaimed Bear.

"You married!" cried Claus.

Then they both chimed in: "Why, you are but a child!"

And in truth she did not look much more.

"I am nineteen," said Fifine, wiping her eyes, to which the remembrance of that questionable good, a husband, had brought tears not of joy; adding, after a pause, "and I was married when I was seventeen. In those two years I have, I think, sounded all the depths of misery."

In completing these words the poor soul fairly broke down, and, burying her head in Bear's bosom, she sobbed as though her poor heart would break. Zerafine entered at this juncture, and, seeing Fifine overcome, and Frau Bromm weeping for sympathy, she immediately began to cry too, so that, altogether, the prognostics were for a wet night. The scene was too much for the Professor; therefore, giving the little hand another gentle squeeze, he laid it down softly, and stole out of the room.

"Lord," he complained, as he walked towards his favourite lounge and promenade, the river-side—"Lord, what a tormentor thou art! why canst thou not let the young and tender alone, and put thy pains and penalties upon the tough and stronger-fibred. If I were thou I would have more compassion for these tender buds."

There may have been some irreverence in the thought; but doubtless the Lord is able to take a gentle remonstrance from an ignorant and compassionate man.

It was a beautiful night, clear, fresh, and with a young moon hanging like a handleless sickle in the sky—as full of stars as a field full of sheaves—and in shadow in the water. The river was singing its eternal song; the buildings stood out clean cut against the dark blue sky, and the people passed to and fro on life's ceaseless business. It was a fair scene, and the philosophic teacher took in the whole with quiet satisfaction. It calmed him after his agitation over Fifine's troubles.

As he walked along—as usual, with his hands clasped behind him—he suddenly saw young Leitner approaching. He was stepping along lightly, with his head in the air, and an air on his tongue, like one to whom the world was as a feast to be enjoyed, and the incite-

ment to it a pair of laughing love-kindled eyes. He saw nothing, not even the Professor, whom he would have passed had the latter not hailed him.

"What, M'sieur Leitner, you study the stars diligently! What constellation is it that so fixes your attention—Leo, Ursa Major, or Virgo? I wager it is Virgo!"

"Ah, Professor Bromm, you joke me. But truly, I was not thinking of astronomy so much as of botany."

"I don't read your riddle," replied Claus.

"Why, I was thinking of a tree, the sight whereof is more delightful to me than could have been the sight of the Promised Land to the Children of Israel, and whose shade is more delicious than that of the vines and figs of the prophecies."

"You are poetical, friend Leitner: I presume you refer to a nut-tree (Nussbaum), and to the female flower of it. How does the fair blossom of our host Nussbaum favour you? for I have heard whispers that you cast loving eyes to that possibly forbidden but not forbidding fruit, Annette."

"I do not know," replied Leitner; "I only know that she does not frown on me; she even smiles at me now and again, and you know such smiles are worth the price of a night's lodging with Lais."

"Methinks thy fancy is running riot a little, friend Leitner. Hast been at the Kneipe to-night?"

"No," replied Leitner; "one in love like me needs no wine to raise his spirits."

"Then the fair Annette's liquid eyes stand thee in stead of a deal of drinking, and save much drain on thy pocket, which is a good quality in woman."

"But truly, Professor," said Leitner, "do you not think Annette's eyes are the finest you ever saw?"

"Except one other's," replied Claus.

"And who is that one?" asked Leitner, wondering where there could be another such a paragon as his Annette.

"My daughter."

"Your daughter! You have no daughter! I beg your pardon, Herr Professor, but I did not know you had a daughter."

"Your ignorance is quite excusable," replied Claus, "seeing that I count my fatherhood but from the night before last."

"You puzzle me," said Leitner; "I did not know that Frau Bromm had brought you——"

"You have got the wrong cow by the horns," interposed the Professor; "it was I that brought her."

"That is too good, Herr Professor," replied Leitner, interrupting him with a laugh. "You will perhaps tell me also that you nurse her."

"Have you, then, not heard of the youth I found on the bridge on Tuesday night?" asked Claus.

"No! I have heard nothing; I have been out of town—at home—since Sunday, and only returned this evening," replied the young man.

Leitner asked to be told all about the adventure, and the Professor indulged him as they took two turns across the bridge. "And you say," said Leitner, when the narration was ended, "you say she is more beautiful than Annette?"

"More beautiful," replied Claus; "and it is doing no reproach to Annette's beauty to say so, for human eye probably never rested on anything more lovely than my Undine."

"I have heard it said," put in Leitner, "that the English women are uncommonly beautiful."

"I have heard Gottschalk say that God ought not to have made anything so beautiful as are some of the English and American ladies; but then Gottschalk has no call to be a judge in such matters. The duller divinity of the schools is his *métier*, and it is a good saying that the 'cobbler should stick to his last.'"

It was late when the Professor and Leitner reached home. The latter at once hugged his pillow, and doubtless in the inner sanctum of his cranium delighted himself with visions of future bliss. Claus went to his writing table, and set to work very diligently to fill several foolscap folios with his crabbed handwriting. It was far "ayont the twal," when he finally put away his pen, extinguished the light, and betook himself to the land of dreams. But before he left his library and drawing-room he threw open the window that looked upon the Cathedral-place, and stood for several minutes intently gazing upon the tower of the Cathedral where its cruciform terminal stretched up among the stars.

When the Professor awoke next morning, Bear was already astir and he saw from her manner that she had something to communicate. He therefore sat up in bed to show her that he had shaken sleep from his eyes. Bear at once came and sat by the bed. "What is it, Bear?" he asked, caressing her hand, which was his favourite way of showing his affection.

"Undine told me everything last night," she replied.

"So!" said Claus, quietly.

"Yes; after you had gone she wept for some time, sobbing so that I thought she would never get over it. Then she asked to be allowed to retire, and when she had been in her room but a few minutes Annette came up, and desired to see her, and when she found that the dear child had gone to bed, she was so disappointed that I must needs go and ask Undine if she would see her clothes-giver. She was already a-bed, but was nevertheless fain to see Annette, and so the two met, and became friends at once, and seemed, by their looks and expressions, to vow eternal friendship. Then, when Annette rose to go, and I to accompany her, the sweet child asked me to stay; and when I did so, she bade me sit by the bed, and, putting her hand in mine, she told me all her life, almost from the day she was born to the time you found her on the bridge. And, oh, such a sorrowful story, Claus! I could hardly listen for crying. She wept a little, but not much. Poor child! she had already wept so much that I wonder there was not a water-famine in her eyes. Then,

when she had finished her story—I will tell it you all presently—she said, tell your husband, but, correcting herself, added, “my dear father,” tell him, when you narrate my story to him, that although I have been wayward and naughty, yet was I not so from a bad heart, but because I knew no better, nor had any one to show me better; and that if he will help me, and you, dear mother (saying which she kissed my hands), I will try to do right, and be a good and worthy daughter to you! Oh, Claus, how can it be possible for parents to be so cruel to their children, and especially to such a child who is affection and goodness itself?”

“It is because their hearts are devilish,” said the Professor, rubbing his eyes: “but tell me the girl’s story, for I am anxious to hear it.”

“I will tell it to you,” said Bear, “as nearly as I can, as she told it to me. She began by saying that, although she had previously given us her name as Montessor, she was very doubtful whether she had a right to bear that name, ‘because,’ she said, ‘although my husband called himself Montessor when we were married, and generally since, his real name, I believe, is George Potter.’”

“Then you do not know for certain?” I asked. She replied, “No; I know nothing for certain about him, except his wickedness.” “Poor child,” I said, “how did you come to know him?” She answered: “At a concert; at least it was there I first saw him. That was at Hastings, in England, where I was at school. I was never allowed to go home during the holidays, but always had to stay at school, unless some of the girls’ parents took pity on me, and gave me an invitation. I think those were the only happy times I had,” she said with a sob, “when I accompanied one or other of my school-mates home. I think I should have been quite a different being if I had known what it was to have a happy home-life. I should not, at least, have been deceived by the man I afterwards married; for it was during one of those dreary so-called holidays that I made his acquaintance. I and a companion, who, like me, was kept at school at holiday times, used to spend a great many of our evenings at concerts and entertainments. We got so that we could not stay in the house, it was so lone and dreary, with no one to talk to but the old parrot, or the Misses Popplewell, who were hardly more entertaining. It was always with them, “Now, dears, suppose you do a bit of French,” or “suppose you do a bit of astronomy, or mental philosophy;” just as if they had been constructed to speak those sentences and no more; till we got to hate the name of learning, and could have thrown something at our teachers, or tormentors as we called them, as we did at the parrot when it repeated their stock phrases, and bade us, “Do a bit of p’litical economy now, dears.””

“The dear child smiled through her tears,” said Bear, “when she recalled these reminiscences. Then she said, continuing her narrative: ‘That summer there was a grand concert company from London, and Potter was one of them. He was a singer, a tenor, and what with his voice, and his concert-hall air, he quite fascinated us girls. We felt flattered when this painted puppet of the foot

lights condescended to notice us. My companion, however, saw through him quicker than I did. She called him a puppy when I thought him a lord. Our nearer acquaintance began with a chance meeting on the sands. Then he used to come and sing his most sentimental songs under the garden wall by moonlight. I was a stupid thing, but I knew no better. I had had no experience to enable me to judge what men were. I had no brothers, and had known no male acquaintance except my father, and perhaps a dozen of his business associates, who were not always of the most reputable description; for father was a sort of general merchant, and dealt in all kinds of merchandise, from German toys to Turkistan carpets, for which he exchanged mock jewelry or small arms; and as these branches of trade are largely filled by Jews, and by Jews of not the highest type, our company at home was not select. I had no experience, therefore, by which to judge of this bejewelled and beapainted man. I had no acquaintance with the genuine article, and so could not tell the counterfeit. He sang well, he dressed well, he talked like an elocution master, or like the hero in the novels we read; indeed, when he came to serenade me of nights, in his folded cloak and Tyrolese hat, he looked like a very hero, or a bandit, which was much the same thing to us. I had never been taught to judge of men other than by their exterior; I knew nothing about their minds, or about that which makes and is the man—character. I knew them—those of whom I had any knowledge at all—simply as they appeared outwardly to the eye. Afterwards I found out my mistake to my cost. Then, however, I was in no mood to be critical, and to look under the surface, even if I had been able. I was under the spell of his few poor accomplishments, which seemed to me marvellous exhibitions of genius. He could play, after a fashion, on almost any instrument. In his hands a tin whistle became a Pan's pipe; with a guitar he charmed like a troubadour of old. He used to carry a small flute about with him, and under the cliffs he would play the heart out of me.'

"'But was there no one to give you advice or warn you?' I asked. 'Did you not tell your parents or your teachers about your new acquaintance?' She said: 'No; if we had told the Misses Popplewell of our having acquaintances outside, or even speaking to any one, they would have confined us to the house, and to our lessons; while as to father and mother—who had then, for some reason or other I never knew, given up business and gone to live at Boulogne—they never troubled themselves about me further than to send the money for my clothes and my schooling; they never answered my letters; indeed of late they seemed almost to have forgotten my existence.'

"'Do you know why they acted so towards you?' I asked. 'No,' she replied, 'I never knew, and nothing that I can think of affords a sufficient explanation of their conduct. The more I think of it, the more it seems to me probable that the sole and simple reason of their conduct was that I was in their way. Both father and

mother were of a gay and pleasure-loving disposition. Mother was an Alsatian by birth, and had been a dancer. She had little education, but being of a bright and lively disposition had acquired great influence over father, who easily fell into her ways, and deferred to her slightest wishes. She was never so much in her element as when we were travelling about. Every year we came to Germany, sometimes spending a month or two at a time here. Once, when I was about twelve years of age, they left me in Kaiserstadt, with a friend, a whole year. That was what made me determine to come here when I left my husband, because I knew of no other friends in the world to come to ; but I could not find them.'

"What was the name of your friends?' I asked. 'Durrstein,' she said : 'his first name was Adolf; his wife's name was Lenette; and they had two children, a daughter a little older than I am, and a son a few years younger; they were wine merchants.' Do you know any one of that name in the wine trade, Claus?"

The Professor said he did not, but would make inquiries.

"Undine," said Bear, continuing the narrative, "then told me how this Montessor, or Potter, persuaded her to marry him before she had known him a couple of months. They were married at a Register Office, by license, her companion and a friend of hers being the sole witnesses of the act. To think of it, Claus! a girl of barely seventeen and a singer to marry like that, and nobody know anything about it. What a strange people these English are!"

"Strange they may be, but practical," replied Claus.

"But they ought not to allow such things. Surely, it does not seem right," returned Bear.

"It does not seem right to us Germans, who are still in leading-strings, but the English have got beyond those childish notions; they find it best to let men and women go alone."

"Well, Claus, we won't dispute about the matter; I'm sure you know best; but it seems a pity a poor girl should be taken in because it is so easy to get married that nobody need know about it who would be interested in seeing that she was not deceived."

"In this case," said the Professor, "the neglect was on the part of the parents, not on the part of the law."

"Could you have imagined that parents would have been so heartlessly neglectful of their child?" asked Bear. "And when they heard of the marriage (for it did not long remain a secret, the school-mistresses hearing of it in less than a fortnight, and at once communicating the tidings to the parents) their simple reply was to pay up their child's schooling, and to bid her teachers turn her adrift, as no longer being daughter of theirs. 'I knew nothing of all this,' said Fifine, until one morning after breakfast, Miss Popplewell called me into her room, and told me very drily and coldly that, as I had chosen to take to myself a husband without consulting anybody's pleasure but my own, I was henceforth to lie on the bed I had made for myself. George had decided that I should remain at school for a time, until certain plans he had in hand were accom-

plished. What they were I did not know; I did not even ask. I only know that he said when they were completed, we should make our marriage known, and go on our wedding tour. Everything was to be very grand, and we were to be supremely happy. For a fortnight I was happy, supremely happy, sleeping in my school-bed, with my wedding-ring (which I only dared put on at night) on my finger, dreaming of my husband, who was the beau-ideal of a silly girl's imagination. How rude was the awakening, you may imagine,' said Fifine. 'I was shown a letter in which my father said he disowned me from that day forth, and would have nothing more to do with me on any account; and then I was told I might go and pack my trunk. Potter felt the blow more than I did. It did not appear to me a very severe infliction to lose parents who had long been almost strangers to me, especially when I considered the near and dear relationship I had just formed. But my husband did not look at the matter in this light; the *contretemps* disconcerted him not a little. I learned the reason afterwards; then I was too innocent in the ways of the world to see through his motives, besides being blinded to his faults by love. He prevailed on me—though at first strongly against my will—to write to my father, asking for his forgiveness. I received no answer, however, to my letter, nor to several others I subsequently wrote at his dictation. He wanted me to continue to write, but I refused, and would not be prevailed upon to depart from my resolution, neither by coaxing nor by threats; for I now saw through his motives, and why I had been so ardently sought, and so pressingly urged to marry. He had his eye on my father's money, having learned—as he confessed to me once in his cups—from one of the servants at the Misses Popplewell's, whom he bribed to tell, that I was the only daughter of a wealthy man, and likely to come in for a rich inheritance some day: and so, though he wooed me, it was my prospective fortune he wanted. Then, when I would not write to my father, he took to writing himself, even pretending that I was dangerously ill, and soliciting money in order to engage a doctor. But it was all the same; they gave him no answer until they were tired of receiving his letters. Then a letter came, returning all his, and telling him that he might as well save the cost of the ink and pen he wrote with, as no farthing of theirs should ever cross his palm, though he and his wife died like dogs in the gutter.

"From that day," she continued, "my husband seemed to take a violent dislike to me. He had long before begun to treat me coldly and with indifference, and to speak to me with incivility; he now seldom had a respectful word for me or a kind look; I was treated as his drudge and slave. Oh, what an awakening it was! But there was worse to come.

"We were then living in a grim northern town, and it was winter, and there was little doing—at least George had few engagements, and those few were wretchedly paid. They were mostly at low concert halls or public-houses, where the temptations to drink were more than he could resist, and so the habit became stronger and stronger

upon him. At one public-house at which he sang he got me an engagement as pianist, but the landlord told him I need not come again after the second night because I turned away from the attentions of the low men who frequented the place. This exasperated my husband against me more than ever, and he began to treat me with downright cruelty. But I still remembered the happy days we had spent together, and had hopes that if I could prevail over him to give up drinking, I might win back some of the old love, and that we might be happy together. A woman with whom we lodged advised me to leave him, telling me that with my good looks I need not be dependent upon such a drunken good-for-nothing, and much more to the same purpose, the full purport of which I did not then understand. But poor wretched man that he was, he was my only friend, and I could no more think of leaving him than I could think of seeking a new world.

"One night when he came home, I was so miserable that I threw myself at his feet, and begged him not to take his love from me, and if I had in any way failed in my duty to him I would amend my ways, and be his humble and devoted wife. He caressed me a little," said the poor child, sobbing, for at this point of the narrative," said Bear, "she became so agitated that it was with difficulty she could get out her words, 'he caressed me a little, and then complained that I was not kind to him in letting him go out to meet his engagements and come back late at night all alone, when I knew he liked my company. I promised to accompany him, and for several nights I did so, but the result only served to show the utter degradation of his character. Oh, how can I tell you the infamy of the man!' she exclaimed, crying piteously; 'it was only another trap to lead me into a low vicious life. Oh, my mother, he wanted to sell me to live on my shame!'

"Could you have believed it, Claus?" cried Bear. "Did you think there were such wretches born?"

"Not in these years of grace," replied the Professor. "No wonder the poor girl left such a scoundrel."

"But hear: he afterwards fell ill, and they were reduced to absolute want; and as he lay there, with the shadow of death hovering about him, he proposed that she should be a loathing to herself in order that he might eat delicacies."

"And she left him to die as he deserved," said the Professor.

"No; but listen: she went to the public-houses where he had been accustomed to sing, and begged that they would let her play in order to earn a few shillings to support her husband during his sickness. In one or two cases they consented, and she nursed and kept him until he was well. But lack of sleep, exposure, and want had its effect, and she took his place on the bed of sickness. Now, mark his gratitude. Before she had hardly regained strength enough to leave her bed, he took her off to another town, where he said he had friends, and introduced her into a house of ill-fame."

"Is it possible!" exclaimed Claus. "The wretch!"

"Then she ran away and left him," continued Bear, "and made her way here, to find the friends of her parents, who were formerly kind to her—putting on boy's clothing the better to evade pursuit, and to travel unmolested."

"Mein Gott!" exclaimed the Professor, "that such a thing could be in these days!"

(To be continued.)

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

W. J. R. (Horsham).—You appear to have a very fairly-balanced character. There is not special defect in your intellect; all the organs are fairly represented, and you are about equally well adapted for scholarship or practical affairs. You have considerable strength of mind in the direction of constructiveness, ingenuity, taste, fancy, and imitative power, giving you more than ordinary gift for some form of art or mechanics. Your musical powers likewise are good, and if you studied music thoroughly you might compose. You have strong social and moral feelings. Benevolence and Conscience appear to be specially marked in their influence. You also have some energy, but more firmness. Guard against being too stubborn and self-willed.

G. H. J. D. (Nottingham).—The following are your chief characteristics: You have a well-developed brain, with most of the organs fully represented. You are of a strongly social type, much attached to home and friends, and capable of very strong affections, both as husband and father. Morally, you are better balanced than usual, and should be known for your kindness, reverence, and integrity. You may be easily influenced when principle is not at stake, but when it is you are firm and tenacious. You are not very proud, but quite independent; are anxious to excel and gain praise, and are naturally rather polite; sharp in your temper, and quick to resent interference, but not hard, cruel, or malicious; very cautious and circumspect in action, but not always so prudent in speech. Intellectually you are qualified for scholarship or for general business. Your memory is fairly good, except it be of words; your power to apply ideas is good, and you have ability either for a trade (one especially requiring constructive power, order, taste, and a quick eye for proportions, &c.), or for commercial business, as a bookkeeper, accountant, salesman, &c. You have great power of imitation, and can easily adapt yourself to others, and to the society you are in. It would be well if you had a little more general resolution.

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THE FACE AS INDICATIVE OF CHARACTER.

THE FOREHEAD.

We now come to the forehead, which, as Sir Charles Bell has expressed it, is, more than any other part, characteristic of the human countenance. "It is the seat of thought, a tablet where every emotion is distinctly impressed."

It is now generally agreed, even among physiologists, that the frontal lobes of the brain are concerned with the manifestation of intellect, and that "with the development of the anterior part of the brain there is a corresponding development of the higher intellectual powers."* The larger the forehead, therefore, *cæteris paribus*, the greater the intelligence. But in judging of the forehead and the capacity it indicates, a good many things have to be taken into account. In the first place it will not do to judge merely by the amount of uncovered space presented by the forehead. The best way to judge of a person's forehead is to draw an imaginary line from the opening of the ear to the arch of the eyebrow; and another from the same starting point perpendicularly to the top of the head: the amount of brain will be somewhat in proportion to the amount of head exhibited by the two lines. What is meant will be best understood by taking the diagram (Fig. 101) and drawing upon it lines as above indicated, and noting the difference in the amount of forehead space accorded to Alexander VI., Zeno, Oberlin, and Philip II. respectively. The student can also compare it with the amount of head behind the upright line, and its position. Alexander was a low sensualist; Philip was a superstitious tyrant; Oberlin was a man of the greatest piety and benevolence; while Zeno was a man of the highest intelligence and the founder of a system of philosophy.

Having decided upon the amount of forehead, and conse-

* Ferrier: "The Functions of the Brain."

quently of brain, the next thing is to ascertain where it is. Considered in regard to mere outline no two foreheads are exactly alike. One is broad and massive ; another is narrow



FIG. 101.—DIFFERENT SHAPES OF HEADS.

1—Alexander VI. 2—Zeno, the Stoic. 3—Oberlin. 4—Philip II. of Spain.

and towering. One falls in below and bulges out above, while another projects below and retreats above. Then some are undulating, others quite round. None of them are without their meaning, as we shall see.



Fig. 102.

When the lower portion of the forehead predominates, the perceptive powers have the ascendant, and curiosity, love of natural science, and observation, are the result. The accompanying portrait of Sir William Herschel, the astronomer, (Fig. 102), shows the perceptive powers unusually large. Compare it with that of Socrates (Fig. 103) and see the difference. In the latter the upper part predominates (although there is no lack of perception), and indicates that for which Socrates was characterised

—thought, reason, understanding. Not that Herschel was wanting in these, but that his strong point was his observation

and power to accumulate facts. One with a head like Fig. 103, is more noted for philosophy than for science; more for the abstract and metaphysical than for the definite and practical

We have now got two broad general distinctions, namely, that the forehead that projects in the lower part is large in Perception; while the forehead that projects above, like that of Zeno outlined in Fig. 101, is large in Reflection. It sometimes happens that both the perceptive and the reflective powers are large, although such a conjunction is not common. The perceptive are rather large in Socrates (Fig. 103), but the reflective faculties are so unusually large that they make the perceptive appear comparatively small.



Fig. 103.

But it is not enough to divide the faculties of the intellect into Perception and Reflection; each division being made up of different powers. Let us take the perceptive first. If we draw a horizontal line even with the arch of the eyebrows, we cut off the perceptive powers, or

"organs," as the phrenologist calls them. They are, beginning from the root of the nose and going outward to the outer angle of the eye, Individuality, Form, Size, Weight, Colour, Order, and Calculation. The first named causes a prominence of the lower middle portion of the forehead, immediately above the apex of the nose. It is seen very large in the accompanying portrait of Michael Angelo (Fig. 104). The other chief faculties are ranged in the order given, round the arch of the eyebrow, beginning at the



Fig. 104.

inner angle, at the side of, and a little below, Individuality, with Form, and ending with Calculation at the opposite corner. Lavater says: "Eyebones with defined, marking, easily delineated, firm arches, I never saw but in noble, and in great men." Perhaps if he had said "in able men," he would

have been nearer the mark. But there is nevertheless a great truth in what he says. In men noted for their clear, vigorous intellect, practical and systematic in their powers, there is



Fig. 105.

almost invariably to be seen a good arch to the eyebrow, as in the annexed portrait of William Makepeace Thackeray (Fig. 105).



Fig. 106.

When any of the faculties are weak or wanting this arch is imperfect. Form, when large, causes a breadth between the eyes, as shown in Fig. 105. Calculation, when large, causes a fulness and depression at the outer angle of the eye. This also is shown large in Fig. 105 as well as in Fig. 106. Order gives breadth and fulness to the corner of the eye, just above Calculation. It is seen large in Thackeray and in Fig. 102. Colour gives fulness and projection to the centre of the arch, Weight to that portion of the arch where it begins to bend towards the nose. Size is between Weight and Form, and causes a fulness of the eyebrow just above the inner corner of the eye. It is best seen in Fig. 106. Language,

which is generally included among the perceptive faculties, is indicated by the fulness of the eye. The reason for this is that the organ of language is supposed to be in that part of the



Fig. 107.

- 24. Individuality moderate.
- 32. Eventuality large.
- 37. Comparison rather large.

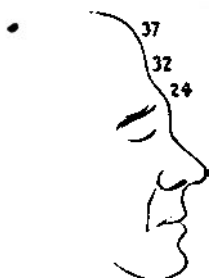


Fig. 108.

- 24. Individuality large.
- 32. Eventuality small.
- 37. Comparison very large.

brain situated immediately at the back of the eyes, so that when it is large it has a tendency to push the eye forwards.



Fig. 109.

The sign is shown large in the portrait of Robert Burns (Fig. 106). When it is small the eye seems sunken.

Between the Perceptives, properly so called, and the Re-

flectives, there is a second line of faculties, which are sometimes called the Literary Faculties, though for what reason it is hard to say. They are—beginning from the centre and going outwards—Eventuality, Locality, and Time. It will probably be found, when the faculties have been thoroughly analysed, that their functions are properly to recognise Action, Space, and Time respectively. Eventuality takes up the central portion of the forehead, just above Individuality, and when large gives a fulness at that part. When it is small there is quite a hollow apparent. The two accompanying figures (107 and 108) show the organ large and small. Fig. 107 represents the forehead of Pitt, who was noted for his excellent memory of events; the other represents the poet Moore, who was deficient in this faculty. A little outwards of Eventuality is Locality. It is shown large in the portrait of



Fig. 110.

Henry M. Stanley, the African Explorer, and discoverer of Dr. Livingstone (Fig. 109). Time occupies the space next to Locality, and above Colour and Order. It is shown large in Whittier, the poet (Fig. 110). There is another organ which properly belongs to the forehead, although at the side of the forehead rather than at the front. It is the organ of Tune, which, together with Time, has to do with the production of music. Its position will be seen by reference to the accompanying outlines of the forehead of Handel (Fig. 111) and of Ann



Fig. 111.



Fig. 112.

Ormerod (Fig. 112). The position of this organ is at the point where Handel is so full and Fig. 112 so small. Ann Ormerod was noted for not being able to recognise a single tune, or to tell one air from another.

For a fuller definition of this and the other intellectual faculties the student should consult a phrenological text-book,

for most of the remarks in this chapter will be based upon phrenology.

We now come again to the reflective faculties. If the reader turns to Figs. 107 and 108, he will see the position of Comparison indicated. It is situated immediately above Eventuality, and when large gives a fulness and sharpness to the forehead in that part, as indicated in the portrait of Moore (Fig. 108). "By the observation of those in whom the organ is large, we are led to infer that its primary office is to note resemblances and differences, not merely in respect to one class of things, but as regards all that comes within the sphere of human cognition. Thus it compares and contrasts objects, actions, states, conditions, emotions and ideas, and by noting minute differences and resemblances draws inferences with reference to them. It is the inductive faculty, and reasons by analogy and analysis from effect to cause; it confers the critical talent, and, with large perceptive powers, forms an important element in the scientific mind, disposing to the classification and systemization of facts."*

On each side of Comparison is the organ of Causality, which, when large, gives breadth and squareness to the forehead, as in the accompanying portrait of Tyn- dal, the translator of the Bible (Fig. 113). In the case of Tyn- dal, the forehead is given additional breadth by a rather large organ of wit. Dr. Gall noticed that in men distinguished for profound, penetrating, metaphysical talent, the parts of the brain



Fig. 113.

lying on both sides of Comparison were very prominent. He found the development particularly marked in the heads of the most zealous disciples of Kant, the metaphysician, and in a still more remarkable degree in that philosopher himself, whose mask he and Dr. Spurzheim subsequently examined. From observing the organ large in these and other men, like Fichte, noted for their profoundly metaphysical cast of mind, Dr. Gall named it *Esprit métaphysique, profondeur d'esprit*, which Spurzheim afterwards changed to "Causality." It will be observed large in the portraits of all men distinguished for their strong reasoning powers, their comprehensiveness of

* "A Manual of Phrenology."

mind, their strength of understanding, and their capacity to grasp the principles and causes of things. It is invariably prominent in inventors, discoverers, and such as are characterised by depth of thought, in whatever direction manifested.* It is large in Socrates (Fig. 103); in Copernicus, Galilio, Luther, Locke, Franklin, Bacon, Newton, and all whose minds have dealt with the subject of causation, and struck out new lines of thought.

A prominence outwards of Causality is a sign of Wit, or Mirthfulness, as the phrenologists call it. It is in a line with



Fig. 114.

the outer corner of the eye, and, when large, gives fulness and width to this part of the forehead, as shown in the accompanying portrait of Lawrence Sterne, the author of "Tristram Shandy" (Fig. 114). It is invariably large in good comedians, and not unfrequently in popular speakers and preachers. In many heads there is a large prominence just above Comparison, although it cannot always be seen on account of the hair wholly or partially covering it. For want of a better name it has been called Intuition. It gives insight into character, knowledge of men, and suspicion. Alongside of it, extending over Causality and part of Wit, is another equally important sign of character, or "organ." It has been called Agreeableness by Mr. Fowler, but that word only describes one form of its manifestation; for, in reality a person with

* See Spurzheim's "Lectures on Phrenology."

"Agreeableness" large can be as disagreeable as any one else. In lack of a better name I should propose to call it "Humour." For it seems to partake of the nature of Wit, Intui-



Fig. 115.

tion, and Imitation (located by phrenologists just above it), and enables a person to fall into the humour of those with whom he is for the time being. It is shown large in the portrait of Sterne, as well as the organ of Wit.

There are only two other signs relating to the bony part of the forehead that we shall here refer to. They are Constructiveness, which gives breadth and prominence to the forehead a little above the temples. It is easily discovered, as it is situated a little externally to Wit, and when large gives an appearance of great breadth to the forehead. It is shown large in the head of George Stephenson (Fig. 115). In mechanics, manufacturers, inventors, &c., it is generally found large. Immediately above Constructiveness is the sign of Love of Beauty, or Ideality, which gives expansion to the forehead in that part, as shown



Fig. 116.

in the portrait of Rosa Bonheur, the eminent French artist (Fig. 116). Persons with the organ large betray an instinctive love of beauty and sense of perfection. Gall called this faculty the organ of Poetry, and it undoubtedly has much to do with the production of poetry. But it has far more important functions than the manufacture of verse. It aids to give refinement to the manners, and imparts a strong impulse to improvement. When it is deficient there is a tendency to be blind to the poetic side of life. A woman lacking Ideality once asked the writer what was the use of flowers, for, she said, "you cannot eat 'em and you cannot wear 'em." Some of the so-called "æsthetics" appear to be lamentably deficient in this faculty.

In addition to the above signs of character or "organs," in the phrenological sense, there are several signs that are impressed upon the scalp, and relate more particularly to expression. The form and direction of the lines of the forehead have much to do with character. Irregular confused lines indicate a tendency to puzzle-headedness; deep angular lines betoken mental worry, and an irritable state of mind, combined with an exacting disposition. Reference has already been made in a previous chapter to the perpendicular and horizontal lines above the root of the nose, the former indicating justice, the latter love of command. Above the latter, in some persons, occupying the lower part of the centre of the forehead, may be seen two or more lines running from about the centre of one eyebrow to the centre of the other. These lines indicate kindness or active benevolence. When the same lines are continued to the outer extremity of the forehead, with a downward curve at their extremities, they betoken active hope. If the lines are numerous, and the curve very distinct, it is a sure sign of enthusiasm, and is often seen in religious enthusiasts. Fine clear parallel lines across the upper part of the forehead indicate clearness of thought and an active intellect. A smooth lineless forehead is not a good sign. A young man who values his comfort will avoid it in one he wishes to "keep company with" for life, and *vice versa*, but not so much so.

It is moral courage that characterizes the highest order of manhood and womanhood—the courage to seek and speak the truth; the courage to be just; the courage to be honest; the courage to resist temptation; the courage to do one's duty.—*Smiles.*

PHRENOLOGICAL DESCRIPTION OF JOSEPH MALINS, G.W.C.T.

Some men are naturally quiet and reticent in disposition, and disposed to seek retirement and seclusion; others, early in life, find themselves in the front rank, and have as much to do with the affairs of others as with their own; in fact, it seems to be their business to look after the welfare of the community. Some would avoid taking an official position and responsibility as much as they would shun bad company and immoral practices; others cannot work at all unless they are in some responsible office. Some have no dignity or personal influence—cannot command respect, exercise authority, or secure any followers, and have no parliamentary ability in any department in life. Others are leaders from boyhood. They are always at the head; they know how to exercise authority without abusing it; they have the rare ability to be able to organize, arrange, superintend, take the lead, assume the responsibility, and make converts to their peculiar views, and they are generally surrounded by faithful followers whose confidence they gain, and to whom the word of command has only to be given to secure obedience.

Joseph Malins, G.W.C.T., represents the latter class of men, and is superior to nine hundred and ninety-nine out of a thousand men, even of this class. His personal influence does not depend upon his commanding presence or attractive appearance, but it comes solely from his mental organization, sustained sufficiently by the physical to allow it full scope and development. His form of head is peculiar in many respects. One of the first remarks I made to him, when I analyzed his character in Birmingham, before I knew who he was or what he had done, was, that the organizing, governing qualities were the leading developments of his brain. His power to command does not depend upon his having been drilled and disciplined in that direction, but it is as natural for him to be a leader as it is for a warm sun to make the plants grow and flourish.

Mr. Malins has several prominent characteristic traits, which stand out in bold relief, and impart tone to his mind. He has large Causality, which gives him the power to think, originate, and lead the minds of others. This is a strong foundation-attribute of his mind. He understands himself, and knows what he intends to do, and how the thing should be done. He can think not only for himself, but for others; hence he acts independently of the thoughts of others, and is self-

sustained. He has large Order, which, joined to his Causality, gives him capacity to organize and get plans into working order, and disposes him to work by rule. Form and Size are large, which, added to the above combination, give him correct judgment of outlines, proportions, and the fitness of things; hence he has the power to design and work by the eye, and can carry all his arrangements in his mind without confusion. His executive brain is strongly represented, and gives him force, energy, industry, resolution, and will-power. Ordinary obstacles stimulate rather than deter him from the work. He flourishes by opposition, and is stronger with it than without it. He is courageous and can be severe, if necessary, in order to accomplish an end. This quality of mind helps to give him the elements of authority, and enables him to exert a personal influence.

He is very high in the crown of the head, and in the region that embraces Cautiousness, Conscientiousness, Self-esteem, Firmness, and Approbativeness. He is characterized for exercising forethought, watchfulness, and prudence; for making a careful preparation before he commences a course of action. He is on the alert and look-out; he provides for emergencies, and is prepared to meet dangers and opposition. His very large Conscientiousness, Firmness, and Self-esteem give him a very positive character, and render him a strict disciplinarian. With him right is right, and wrong is wrong, and he will never yield to a compromise when there is any principle at stake; few have larger Conscientiousness, or the faculty more actively developed. He deals in no half-way measures, but is disposed to work on a good and just foundation. This is the leading feature of his moral character, and has a powerful influence in regulating his conduct and directing his actions. He has great presence of mind, self-control, and independence of feeling, is conscious of his strength and cannot easily be discouraged or disconcerted. He is in his element when he has responsibilities. He is very tenacious of his opinion, is firm and persevering, has great self-control and power of will, and that kind of ambition that stimulates him to do his best on all occasions.

Having such a combination of faculties, he could not lead a passive, quiet life, for he has not only great control over himself, but it is easy for him to control others, and he is specially adapted by his organization to be a leader and organizer. He has tact, and knows how to be reticent, also when to speak, and when to stop speaking. His speeches are more direct and to the point than they are copious and wordy. He has the power to condense and to express his ideas in a tangible

manner. He has also the elements of economy, and can be saving. If he fails at all in business matters, it is in attending to the details and less important parts. His desire is to be perfectly accurate and successful in all he attempts to do. His very large Conscientiousness and Causality make him desirous of examining theology, law, and abstract principles of justice. If he were a judge he would follow the law without reference to those whom it affected, whatever the result might be. In all his efforts to do mankind good, he would have law and justice as a foundation to work upon, in order to have a better gospel superstructure. The religious element of his nature is not so strong as the moral element.

He is not a great respecter of persons, is no idolater, values only what he considers to have real worth, without reference to age, rank, or wealth. His mind dwells on the future more than on the past, and he is progressive and reformatory. He is ingenious and artistic in his tastes and talents, and is well qualified to design and originate a new order of things. His imagination is of great service to him in filling out his plans, and in giving largeness and scope to his mind. His social brain is distinctly developed, and has a great influence in his character. He is warm-hearted, enjoys the social and domestic circle and the friendly gathering.

He has a compact, condensed muscular system, and is naturally strong, tough, enduring, and healthy. He is in his element when hard at work. His brain and nervous system are vigorously sustained by his health of body. His brain is of good quality, is twenty-two inches in circumference, and well-proportioned to the size of his body.

Mr. Malins signed the pledge when he was sixteen years old, and has zealously laboured in the cause of Temperance ever since. He early began to induce others to sign the pledge, and to form Temperance societies, and he established an agency to circulate information on the subject by books and tracts. He took a trip to America, and while there became interested in the Order of Good Templars, which was flourishing at the time in Philadelphia, where he was living. When he decided to return to England, the Right Worthy Grand Lodge of America gave him a commission as Deputy Right Worthy Grand Templar, and empowered him to form Lodges in England. On his coming back to Birmingham, he resuscitated St. Thomas's Temperance Society that he had joined before he left for America; and on December 8, 1868, he organized some of its members into a "Columbia Lodge," No. 1. Three months elapsed before another lodge was

formed ; but soon the work spread, and at the present time the Order has extended to all parts of the kingdom.

Having started the Order on this side of the Atlantic, Mr. Malins has been the G.W.C.T. from the first. He has been chosen unanimously each year as he deserved to have been, not because he is faultless, and can make no mistakes, but because he understands the subject from the beginning. His whole soul is in it, and he gives his time and energy to the cause, and is particularly qualified to be the moderator, regulator, and leader ; to keep order in the meetings, and to settle difficulties that may arise from time to time in such a large body. He is the personification of authority, equity, and system, is perfectly adapted to a place of responsibility, and is all the more fitted to govern others, because he can govern himself ; besides, he has a will-power and energy that enables him to overcome all obstacles.

Mr. Malins now devotes his whole time and energy to the cause of Temperance. He does not give much money to beggars, but he is trying with all his energy, conscientiousness, and talents to prevent men from becoming beggars, and sending their families to the poor-house. He travels from one part of the country to the other in the interests of the Order, to encourage those already connected with it to bring in as many old and young into the ranks as possible, and thus save thousands from destruction. L. N. F.

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

CHAPTER V.

OF CRANIOLOGY AND CRANIOSCOPY.

But the living brain can never be exposed to observation ; and from the nature of its substance, loses much of its form and texture soon after the death of the subject.

The inference, therefore, of the physiologist concerning the organs of the brain would avail him but little, unless some certain connection were ascertained between the brain and its permanent covering, the skull. This connection is asserted in the following fundamental position.

"That the internal lamina or plate of the brain-pan or skull is, during the life of man, perpetually formed by the brain itself. And that therefore where the internal and ex-

ternal plates of the skull run parallel, we may infer the form of the brain from the outward shape of the skull."

On this fact, and on that before stated—that each of the convolutions of the cerebrum consists of an organ of some intellectual or sensible power, the greater size and development of which would of course give the skull its peculiar shape—rest the sciences of *craniology* and *cranioscapy*. The one of which asserts that the shape of the skull gives the law by which, not the actual character, but the tendencies and dispositions towards character in men, are determined; and the other asserts, that that law can be discerned and ascertained by contemplating the shape of the skull.

The merely observing the process of ossification, is sufficient to suggest that the bone is essentially the passive result of the more active and finely organized matter to which it is attached; and this is further confirmed by its subsequent diminution, and the mode of its being affected by the diseases of the brain. When the brain, with its three coats or skins, the *pia mater*, *tunica arachnoides*, and *dura mater*, which attend it in its circumvolutions, is already perfectly formed, there forms itself on eight parts of the external skin, a point of ossification at which a slimy matter exudes; this hardens, lines diverge from it in every direction, and at length the eight bones of the skull are formed; these lines of concretion firmly attach themselves to the *dura mater*, they harden, meet at the sutures or seams, and complete, after the birth, the covering of the skull.

The best commentary upon, and deductions from this statement, will consist in answering the objections made to the general theory.

(1) Can we infer the form of the internal plate of the skull from that of the external plate? Answer: The *laminae* run parallel till the individual is about forty years of age, later in life variations take place, as well through age as disease, which will be noticed; and the power of inferring the one from the other suffers restriction.

(2) As the brain is of so soft, almost fluid, a substance, is it found that the organs retain the same place in the brain, so that they can be with certainty recognized? Answer: Observation shows that the folds and convolutions of the cerebrum, in the more simple animals, are quite symmetrical; and in man, nearly so. And though the extent and boundaries of the organs may not yet be always determined, their relative position and their relative perfection may be ascertained.

(3) Is it not more probable that the form of the skull being determined at the birth, fixes that of the brain?

On no account ; for whatever violence may be done to the bones of the skull during the birth, those bones return into their natural state, partly from their elasticity, partly from the active power of the brain working outwards. It is only when the bone is broken, and the brain itself is injured, that the intellect is affected, and that the skull retains the form which violence had impressed on it.

Gall produced, in confirmation of this statement, the remarkable skull of a man full grown, which was at the birth broken by Levret's forceps on both sides, and never recovered its form. The mark of the forceps was distinctly observed on the outside; but the internal lamella had no impression upon it, because, not being broken, the power of the brain had restored it to its original shape. Yet from the thinness of the internal lamella, and the violence with which the forceps forced in the outer lamella, it having, by touching the inner lamella, destroyed the diploe between, it cannot be doubted that some violence must have been done also to the inner plate.

The principal cause of this activity of the brain operating outwards, lies in the regular motion of the brain occasioned by the circulation of the blood : this is the reason why swellings and *aneurismata* in the membranes of the brain never work inwards but outwards ; that in case of wounds upon the skull, the mass of the brain presses outwards ; that the vessels of the brain and its coats press upon the internal lamina of the bone. And this is in like manner the reason why, when at the birth, the bones of the skull are pressed or pushed wrong, without being broken, the brain under the place suffering violence, instead of being paralysed and destroyed, recovers itself by its own energy, remedies the injury, and forces the parts into their proper place. How otherwise do the heads of animals recover their shape, which are often pressed in during birth ?

(4) But are not the most important organs of animal life and of the intellectual functions, formed *after* birth, and long after the skull is completely formed ? It is ascertained that certain organs are formed after birth, and Gall himself asserts that the brain alters its shape in conformity with such subsequent formation.

It is necessary, in order to explain this, that we anticipate in one or two points, the enumeration of the organs. Gall observes that a very prominent swelling of the forehead is characteristic of young children, and that as they advance in years this protuberance diminishes, and the forehead retreats. There is another observation which every one has made, that the faculty and the habit of attention is peculiar to children,

that they have a facility and felicity in making observations which seem to surpass what we afterwards remark in them. Hence, says Gall, the aptness of most parents to imagine their children, in whom they remark this sagacity, are possessed of singular talents ; when a few years are passed over, the wonder ceases, and the miracle of three or six years old is an ordinary boy at ten or twelve. Gall connects these observations together by placing the organs of observation in this district of the *os frontis*, as will be afterwards more particularly pointed out.

This is also confirmed in the organ of the sexual impulse, which is seated in the *cerebellum*, as will be shown hereafter. It is known that the *cerebellum* is, in proportion to the *cerebrum*, very small in children compared with its size in adults. The gradual development of this organ may be perceived by comparing skulls at different periods of life. In children, for instance, that part of the skull which corresponds with the *cerebellum*, between the two mamillary processes of the *ossa temporum*, measured across, occupies one inch and a half ; and at the same time another part of the skull, corresponding with other organs, measures, between the same processes and the summit of the *ossa parietalia*, three inches. But with increasing years, as the sexual impulse and its organ are more and more developed, this proportion is no longer to be found on the skull ; and the space between the mamillary processes approaches (as is demonstrated by a comparison of skulls of all ages) the breadth of the skull between the mamillary processes and the summit of the *ossa parietalia* ; till, at length, when the individual has arrived at his full growth, it equals and even surpasses it.

If this active power of the brain in forming the skull, which passively yields to all influence from within, while it resists all pressure from without, be established, how are we to account for the facts stated by travellers concerning the artificial modelling of the head by savages. Gall objects to these statements, and considers them as not being entitled to much weight, from their not having proceeded from anatomists, and not being confirmed by any skulls brought into Europe for examination. He knows, he says, that nothing short of extreme violence could produce any permanent effect upon the shape of the skull ; and he appeals to observation. There are many provinces of Germany in which persons, and particularly women, are accustomed from their infancy to carry heavy burdens upon their heads, but though this has subsisted for generations it is not found that any flatness is prevalent on the skulls of such people. But where the bone has been broken,

it would follow, that if death do not ensue, yet the organs immediately under the injured part would be paralysed and injured; hence it is found that the same travellers who give an account of the deformity thus violently caused in the skull, also relate that among the same people extreme stupidity and idiocy are very frequent.

(5) But does not ossification proceed according to certain laws of crystallization, according to which we assume that the *sinus* of the *os frontis* and the upper jaw bone arise? How then can the brain determine the form of the skull?

To this it may be answered, that we find in the whole economy of nature, that the law by which the inferior organization proceeds is, in a manner, subdued and rendered of no effect by the action of higher laws. Thus, during the existence of animal life, we find the mechanical and chemical properties of matter, as it were, suspended. In like manner, here too, the laws of crystallization are rendered invalid by the superior energy of the living brain. Besides this, we often observe that the brain has power to restore the inward lamina of the skull on which it immediately acts, while the outward plate retains its injury. As after trepanning and wounds, and where the sutures separate in an *hydrops cerebri*, only the inner, not the outer plate, is restored; yet if the process of ossification were independent of the brain, we might expect a like reproduction of both. On the other hand, where the brain likewise is injured, then the inner plate is not restored, and disease always remains. The cases of *hydrops cerebri* strikingly show the power of the brain; the skull swells enormously, and the membranes, which before united the bones, themselves harden to bone. These statements were confirmed by the production of a skull on which this partial reproduction, &c., could be perceived.

(6) It has been suggested that the form and eminences of the skull may be attributed to the action of the muscles affixed to it, as we see that the muscles elsewhere form such eminences and protuberances. But this objection is sufficiently refuted by the impossibility of the muscles acting on the inner plate of the skull, with which the outer plate runs parallel, even in advanced life, and when the laminæ are at a distance. Besides this, there are parts of the skull marked by protuberances, which are not covered with muscle; as, for instance, the swelling of the upper part of the *os occiputis* in women (the organ of parental affection) which is much stronger in them than in men, and on which no muscle acts.

(7) But if the growth and development of the brain and its

parts have influence upon the form of the skull, in like manner the decrease or diseased imperfection of the brain should also affect it.

And this is found in fact to be the case. When in old age the powers of the mind decay, the brain also, as it were, shrinks; the convolutions sink in, and interstices are formed. In this case, either both plates of the skull gradually retreat and sink in, after the brain (and this generally takes place on the forehead first) and thus the head becomes smaller in general, as our daily observations upon old people may convince us. Or the skull itself becomes thicker, either by a new mass of bone forming itself in the place of the shrunken brain; or the inner plate alone shrinking, a fresh mass of diploe is collected between the two plates of the skull. Hence it happens that in old age the head always becomes smaller or heavier, and sometimes both.

It is not only in a state of health that the skull is modified by the brain. The disease of the brain will also produce a diseased form of skull, which thus serves as a diagnostic sign of the disease of the brain.

In an *hydrocephalus internus*, the *ossa parietalia* are pushed outwards. But at first the water presses downwards, makes the *basis cranii* flatter, and the orbits narrower, so that the eyes are pressed out.

Gall produced the skull of a boy seven years of age, who died of a consumption of the brain; the skull was unusually small, and Gall stated this as an instance that frequently occurs, and showing how the growth of the skull was impeded by the disease of the brain.

Another phenomenon attending the shrinking of the brain was stated by Gall to be not unfrequent, and leading to the same conclusion; that is, the hollowness and deepness of the orbit of the eye, the lamina of which retreats backwards with the shrinking brain.

But the more important cases on which Dr. Gall relies are those of lunacy, confirmed madness, and a disposition to commit suicide. With respect to these, Gall professes to have been led by his theory of the brain and of its organs to adopt modes of cure which have been successful, and which promise to be of great value to the practising physician.

When lunacy has lasted long, one part of the brain shrinks away after the other, till confirmed incurable insanity is the consequence. The effect of this is, that the skull becomes always smaller and generally more heavy, thick, and dense, from the accession of bone and diploe, as before stated. By lunatics, too, the same appearances take place.

Gall has also found in suicides the same thickness and weight of the brain ; and he ascribes self-murder to a general disease of the whole brain, and considers this fatal deed as generally within the sphere of the physician rather than of the moralist. He ascribes therefore no organ to the love of life.

Where the disease of the brain is topical, there too the skull is partially affected. Where the brain is generally diseased, the skull betrays the evil by its general appearance ; it ceases to grow, and a remarkable smallness and thickness of skull is apparent, not only in idiots, but in whole races that have been brutalised by long subjection and slavery.

These observations were made by Dr. Gall as the result of many years practice, and with a particular attention to the subject. Here, too, he related a number of cases, the enumeration of which would be here irrelevant. He accompanied these statements by the production of skulls of very unusual thickness and weight : one of them, which weighed twice as much as another skull of an adult which was produced for other purposes, he stated to be that of a poor man, who had all his life been known as an industrious, sober, and honest man, but of a melancholy temperament : on a sudden, though no motive adequate to the action could be discovered by those who were acquainted with him, he killed his wife, several children (all of whom he loved tenderly) and then himself.

Gall stated expressly, that he had never known either a lunatic, madman, or self-murderer, on whose skull some unusual appearance, either in the particular formation or general texture, was not discoverable. He considers the fundamental causes of these diseases to lie in the brain, which however he supposes to be strongly affected by the climate and weather.

Among the external causes, he imputes much to a moist atmosphere, and has remarked fatal effects in Germany from a prevalence of the south wind.

CRANIOLOGY OF INEBRIATES.

DR. J. S. WRIGHT, professor of surgery in the Long Island College Hospital, of Brooklyn, U.S.A., has lately made some original studies of the heads of inebriates, comparing them in size and special developments with those of epileptics and others.

He assumes that any organ which has notably deviated in conformation and volume, has also deviated in function, that the brain may deviate from the standard of conformation and

volume, that any organ of the body has in health a fixed, though variable, conformation and volume; and a constant, though variable, function. The first question to be solved was this: Does the confirmed inebriate have an abnormal conformation of the brain? In answer, the heads of thirty-five confirmed inebriates, inmates of the Inebriates' Home at Fort Hamilton, N.Y., were measured and compared with similar measurements of thirty-five uneducated men. The average weight of the inebriates was found to be less, owing to the derangement of nutrition and general health, but the average height was greater. The head of the confirmed inebriate had a greater circumference than the head of the uneducated man, but this measurement can not be depended upon as an index of the volume of the contained brain. His conclusions were:—

1. The uneducated man has a greater volume of brain in the anterior part of the cranial cavity than the confirmed inebriate; also a greater volume in the posterior part of the cranial cavity.

2. The confirmed inebriate has a greater volume of brain in the middle part of the cranial cavity than the educated man; also in the middle region of the head the vertical diameter of the inebriate is greater.

Hence it appears that the brain of the inebriate shows a deviation of both organism and function. In the majority of cases the conformation and the volume of the brain are attained by the time the individual is twenty-five years of age; hence inebriety may not be the cause of the deviation in conformation and volume of the brain of the confirmed inebriate. The causes must operate previous to this date. They must occur during the early life of the individual, or they must be hereditary. In many cases these causes are inadequate to produce the deviations in volume and conformation found in the brain of a confirmed inebriate; hence it is concluded that they are mainly hereditary. It is also thought that the brain of the confirmed inebriate is of a poorer order of development than the normal brain.

It follows then that these deviations of the brains of confirmed inebriates are properly to be treated as diseased conditions, and that a confirmed inebriate must be treated as a sick man.

In the study of the question, Do epileptics have an abnormal conformation and volume of brain? a large number of cases were examined. The result reached was that the brain in incurable epileptics is a deviation both in structure and function. The outset of the disease is generally hereditary.

Given this outset, manifested in the conformation of the brain, we have a basis for the development of epilepsy, or inebriety. Looking upon certain individuals as having heads deviating from the standard of volume and conformation, and finding that they are not adjusted to the conditions in which they live, and that they exhibit abnormal functional manifestations, and seeing that the influences of disease and injury augment their deviations, in a given case of injury or disease we may have in the brain itself an important indication as to what the clinical history may be not only immediately, but during the rest of the life of the individual. Dr. Wright notes also that the average criminal exhibits a deviation from normality; and concludes that the brains of inebriates and epileptics vary but little, and with slight changes would readily run into each other. The modified brain found in the epileptic has often descended from the altered brain of an inebriate.

MEDICINE AS PRACTISED BY ANIMALS.

M. G. Delaunay, in a recent communication to the Biological Society, observed that medicine, as practised by animals, is thoroughly empirical, but that the same may be said of that practised by inferior human races, or, in other words, by the majority of the human species. Animals instinctively choose such food as is best suited to them. M. Delaunay maintains that the human race also shows this instinct, and blames medical men for not paying sufficient respect to the likes and dislikes of the patients, which he believes to be a guide that may be depended on. Women are more often hungry than men, and they do not like the same kinds of food; nevertheless, in asylums for aged poor, men and women are put on precisely the same regimen. Infants scarcely weaned are given a diet suitable to adults, meat and wine, which they dislike, and which disagree with them. M. Delaunay investigated this question in the different asylums of Paris, and ascertained that children do not like meat before they are about five years of age. People who like salt, vinegar, &c., ought to be allowed to satisfy their tastes. Lorain always taught that, with regard to food, people's likings are the best guide. A large number of animals wash themselves and bathe, as elephants, stags, birds, and ants. M. Delaunay lays down as a general rule that there is not any species of animal which voluntarily runs the risk of inhaling emanations arising from their own excrement. Some

animals defæcate far from their habitations ; others bury their excrement ; others carry to a distance the excrement of their young. In this respect they show more foresight than man, who retains for years excrement in stationary cesspools, thus originating epidemics. If we turn our attention to the question of reproduction, we shall see that all mammals suckle their young, keep them clean, wean them at the proper time, and educate them ; but these maternal instincts are frequently rudimentary in women of civilized nations. In fact, man may take a lesson in hygiene from the lower animals. Animals get rid of their parasites by using dust, mud, clay, &c. Those suffering from fever restrict their diet, keep quiet, seek darkness and airy places, drink water, and sometimes even plunge into it. When a dog has lost his appetite, it eats that species of grass known as dog's grass (*chiendent*), which acts as an emetic and purgative. Cats also eat grass. Sheep and cows, when ill, seek out certain herbs. When dogs are constipated they eat fatty substances, such as oil and butter, with avidity, until they are purged. The same thing is observed in horses. An animal, suffering from chronic rheumatism, always keeps as far as possible in the sun. The warrior ants have regularly organized ambulances. Latreille cut the antennæ of an ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth. A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days into running water : this animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook, where its food was taken to it : the animal recovered. A terrier dog hurt its right eye ; it remained lying under a counter avoiding light and heat, although habitually it kept close to the fire. It adopted a general treatment, rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, which it applied to the wounded eye, again licking the paw when it became dry. Cats also, when hurt, treat themselves by this simple method of continuous irrigation. M. Delaunay cites the case of a cat which remained for some time lying on the bank of a river ; also that of another cat which had the singular fortitude to remain for forty-eight hours under a jet of cold water. Animals suffering from traumatic fever, treat themselves by the continued application of cold, which M. Delaunay considers

to be more certain than any of the other methods. In view of these interesting facts we are, he thinks, forced to admit that hygiene and therapeutics, as practised by animals, may, in the interests of psychology, be studied with advantage. He could go even further, and say that veterinary medicine, and perhaps human medicine, could gather from them some useful indications—precisely because they are prompted by instinct—which are efficacious in the preservation or the restoration of health.—*British Medical Journal*.

WHY PHRENOLOGY IS NOT UNIVERSALLY ACCEPTED.

Of all sciences, I think there is, perhaps, none so misrepresented, so misunderstood, and consequently so disbelieved as phrenology, and one might well ask the question, Why is this? How is it that a science, treating upon the brain as the organ of the mind—which, as Dr. Watts says, “is the standard of the man”—should, in this nineteenth century of advancement and education, be so grossly neglected? It will be my endeavour, in this short article, to show that it arises from one cause, namely, an incorrect idea of the general principles of that science, and that all that has been written and said against phrenology, to any one the least acquainted with the doctrines of the same, carries with it its own refutation, for a little examination will show that the speaker or writer—as the case may be—is ignorant of the science which he has thought well to oppose. Hence we have so many anti-phrenologists basing the whole of their opinions upon what they may have heard or read from some one like themselves who have misunderstood, and consequently rejected the science offhand. But perhaps there are many who will contend that they have examined phrenology. Granted: but I maintain they have done so in an unfair manner; namely, with a view to reject it in the end; and that cannot be an impartial investigation of any subject. A subject, Macaulay says, should not be studied with a view either to believe or to disbelieve it, but to carefully weigh each matter for and against, and so arrive at truth; and I am confident that if any one with common intelligence gives the science of phrenology a fair and impartial investigation, they cannot help coming to the conclusion that it is the only mental science based upon nature; for phrenology has no rival theory, and

there is no doctrine of mind and brain with which it can be compared. Its principles are founded upon facts, established as such after years of careful observation, and no one who has not qualified himself to test those facts by actual experiment has a right to question them. It would be impossible, in a short article, to wade through the numerous objections which have been brought against phrenology, and answered over and over again, and which any intelligent person can, by a careful examination of the subject, abundantly substantiate. Nevertheless, it is a mistake to suppose that any one can grasp and understand phrenology by a mere superficial, and, in some cases, biassed examination, and I fail to see why the science should be disposed of in that way. I grant that it is as yet imperfect, which is all the more reason why scientific men should examine and endeavour to clear away those difficulties, and to make phrenology more generally understood than it now is, and also to elucidate those mysteries which have always surrounded the brain and its functions, and at the present time, when so much attention is being paid to the education of the young, to make phrenology of more practical use. And surely educators should pay attention to the brain as the organ of the mind with a view to its proper development. But it is lamentable that the majority of our schoolmasters and teachers are ignorant of the different organizations and qualities of brain which are placed in their charge to unfold and bring out in the best possible manner. Hence we have in after life so many in their wrong places through having been put under the charge of those who did not know themselves, and therefore could not give to others the information they themselves stood in need of.

But I am pleased to see that a healthy reaction is setting in, and that more attention is being paid to differences of temperament and organization, which years ago would not have been thought of; and the very principles which were upheld by the old disseminators of phrenology, in spite of ridicule and contempt, are being accepted and acted upon; and though the science has had to contend against difficulties which appeared almost insurmountable, it still holds up its head, and is gradually working its way, step by step, and being accepted by many scientific men. The time, I hope, is not far distant when phrenology will take its proper place among the first of sciences; for what can be grander than a science, the chief object of which is to place every one in his proper position, and to put into his hands the best means of improving the talents which he has been endowed with.

Many thousands can look back upon, and date their success

from, the time when they gained that information, and until the opponents of the science can place in our hands a better guide to the improvement of our mental characteristics, they had better hold their peace. For if phrenology is what I maintain it to be, namely, the only true mental system, then all the opposition that is brought against it will be of no avail, and if not, then the sooner we have placed in our hands a more reliable system the better it will be for the general good.

But as it is, phrenology stands alone as the only mental science, and unless a better can be discovered, it will ultimately be brought to play an important part in the general education of the world, and, like all other great discoveries, be acknowledged by the very men who have gone out of their way to oppose it.

It is to be regretted that many, in endeavouring to further the principles of the science, actually do more to impede its progress than its worst opponents, for the simple reason that they have not paid sufficient attention to the subject before expressing their views upon it. Many persons having heard from such what they believed to be a true explanation of the science, are deterred from accepting it, and, as I have said before, base their opinions upon what they have heard, and use the very arguments which have been brought forward in its favour as weapons whereby to oppose it, and, of course, in so doing bring phrenology into disrepute. I am not at all surprised that phrenology is looked upon as being below the standard of other sciences, when we have, as I have seen, so-called professors putting themselves on a par with strolling musicians and Punch and Judy shows upon the sands of our fashionable watering-places. But all these impediments in the way of the advancement of phrenology will, I hope, ere long die away, and we shall see it placed upon the same platform as other sciences; and I believe the time is coming when phrenology will be proved by practical use to be the best mental system ever discovered and given to us by men who had to fight and clear away the difficulties which at the present time stand in its way.

H. P. FROMANT.

THE necessity for labouring for one's bread, looked upon the world in general as a great misfortune is sometimes, on the contrary, the greatest of blessings. It gives health to body and mind. It fosters and directs a just ambition, and it teaches a man to respect himself, by giving him a knowledge of the power within him.—*G. P. R. James.*

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER V.

SOME NOTIONS ABOUT MAN AND WOMAN.

To the little world living under the roof and ægis of "Der Gute Prediger," the advent of Fifine was a kind of Hejira. A new epoch seemed to date therefrom. The whole life of the house changed at her coming, and nothing in its common or individual life was ever again as it had been before. If a being had dropped into their midst from another world, the change could hardly have been greater or more sudden. From Hans the Kelner, to Fritz the little cripple, all had felt the influence of her presence. Though Hans could not have told, had he been asked, in what this change consisted, he nevertheless felt that there was a light and a charm in the house that had not been there before. He knew that his feet showed more alacrity in doing an errand for her than they manifested at any other time, and that somehow there was better value in her smile than in the silver grochen of others. He had at the worst of times what Claus Bromm called an open countenance, but it was transformed into openness itself in the presence of the fair Undine, so broad did his smile become. To little Fritz she had come like an angel of light. No one in the house had ever been unkind to him, but Fifine had shown him more than kindness. She had brought the comfort of a perfect sympathy such as he had never before known.

The human heart is like the great deep, before, as we are told, the Spirit of God moved upon it, and it became informed; it needs the quickening and kindling influence of sympathy or love to develop it, and bring it out of itself. Without this, there lies in human hearts a world of possibilities untouched and dead. Fritz began to live as he had never lived heretofore. Fifine loved to talk to him, and tell him about the great world of which he had seen so little, and was likely to see so little, and of which she had, sorrowfully enough, beheld so much. His bright eyes dilated with wonder as she told him about the great steam-ships that went across the seas like floating cities; and about London, the largest of all cities, and a thousand other things he had heard of but never seen. She liked to play to him, too, but not so well, for though he loved music, and often asked her to play, yet it frequently made him weep, because, as he said, it filled him with such dreams of happiness as it was pain to think of.

There was one way, however, in which she could give him pleasure without alloy; that was by teaching him drawing, in which some little instruction that she had received had come to the aid of much natural aptitude. The greatest pleasure Fritz had in life was in using the pencil; it was his ambition to be an artist, and to depict life as

it appeared to him. It had been his wish to take lessons, but that was a luxury beyond the reach of Wendel's means. Fifine's coming, therefore, appeared to Fritz—and not only to him, but his mother also—as an act of Providence. The poor youth had often dreamed that the good fairy might come to him—as in the Märchen—and teach him the way to greatness.

“And am I not as good as a fairy?” asked Fifine, when he told her of his day-dream.

“Oh, yes,” he replied, “better; for a fairy only comes now and again, but you are always here.”

Fritz's mother was so grateful for Fifine's attention to her boy, that she was as ready to fetch and carry for her as Hans. Frau Grossbein had another way of showing her gratitude, that was by cooking little tit-bits and bringing them down to her to tempt her appetite, which for some time had a habit now and then of wanting coaxing.

Alike fruitful of good was Undine's advent to Leitner and Annette. It was the means of bringing them together, whereas otherwise they might have had to wait long enough, even if they had ever come together at all. For after Leitner had learned that neighbour Bromm was blessed with a daughter, it was natural that he should drop in occasionally of nights to ask how she did, and how the Frau Professorin did; and the more so when he found that Annette and Fifine had become close and fast friends, and that they were much together. There were, consequently, pleasant little reunions once or twice a week in the Claus Bromm dwelling, with kindly frugal little suppers, pleasant chat, some love-making (between Leitner and Annette), and snatches of music and song; for Nagelmann's lodger had a fair voice, and a goodly repertory of songs at his tongue's end. Annette also could sing, and sometimes would be prevailed upon to try a duet with Leitner. Fifine's music was in her speaking voice, which was like a ripple of melody; and though she did on occasion break into a soft low melody, it was more like a warbling to her own spirit (as caged birds will sometimes trill in their sleep) than something meant for other ears.

The Professor encouraged these little gatherings, although the family fortunes could ill afford the extra expense they occasioned, being, as they were, already sufficiently tried by the extra mouth that had to be filled. The trouble occasioned by the *res angusta domi*, fell chiefly upon Bear, who had the husbanding of the family income; but who, good manager as she was, was not unfrequently at her wits' end to compass that ofteneft debated feat of needy housewives, how to make both ends meet. If the riddle was put to Claus how to provide the necessary means, his answer would be that retrenchment must be made in some other direction; the difficulty being, however, to find the direction in which such cutting down could be made, where the paring process had been carried to such an extent that hardly anything was left to pare. He had already retrenched the butter from his roll taken with his coffee in the morning, and reduced

his second breakfast to a dish of potato salad, and his ordinary not-with-company supper to a plate of milk soup, or a cup of chocolate and toast. When Bear and Zerafine—who had reduced their *menu* to still narrower limits—remonstrated with him on this self-imposed Lenten regimen, he would jokingly reply that it would do him no harm, being no longer a young man with an excess of animal spirits to keep up, but of that age and equable temperament that required much air and little food; thus ever turning his philosophy to the strengthening of his content.

He was not of that easy faith that expects food to follow mouths, whether the extra mouth calls forth additional effort or not, although he was well grounded in the belief that Providence leans a little towards the willing hand and the cheerful heart, and often bumps the scales to the generous, when the more parsimonious receives but skimp measure. So he set to work to get, if possible, more pupils; he at the same time began an article—or perhaps it would be better to say several articles—for the *Uebersicht*, for which he hoped to get enough to defray the extra expense of his new house-joy, as in the copiousness of his naming faculty he was fond of calling Undine, by way of change and endearment. The subject of the article upon which he had finally decided to write, and which had proceeded the farthest towards completion, was, “On some Aspects of the Supernatural;” in which he endeavoured to show that the fact of all peoples, and from a very early age of the world, having fallen upon the belief in the existence of spirits apart from the material body, was a proof that there must be some ground for the belief, because, granting either the theory of causation, or that of evolution, the existence of a faculty for such belief presupposed the necessity for it; for, he argued, if we were of opinion that man was the result of a special creative act, we must allow either that the faculty to believe in ghosts was created for a special purpose, as the faculties to perceive colour, or sound, or beauty; or else that it was an act of supererogation, and a bias altogether for the purpose of deceit; or, if we leaned to the belief that man was the result of a progressive development, the fundamental idea of which theory is the elimination of useless members and faculties, how account for the survival of a faculty of so overwhelming an influence in the human mind, if there was nothing in creation to answer to its impulse? As well say that the trembling of the needle to the pole was a vain purposeless phenomenon, as say that the ceaseless turning of the mind’s eye to immortality and a future life was a blind, senseless yearning.

The Professor read his lucubrations to Bleichroder one night when he dropped in to smoke a pipe and chat with his old friend. He did so partly with a view to finding out the weak points of his article by adverse criticism; for he knew the Doctor was a sceptic on these matters, and partly for the sake of having a kindly chat on a subject which was nearest his heart. Nor was he disappointed in either hope; the Doctor took up the challenge, and uttered his whiffs of

smoke and his opinion upon the subject before him with equal distinctness and fervour.

"Why should I believe," he asked, "that man is immortal, any more than I should believe that my dog is immortal? What proof have we that there is a something, call it soul, or spirit, or what you will, distinct from the body and mind?"

"How, then, do you account for the belief in ghosts?" asked the Professor.

"Just as I account for the belief in any other folly."

"But, reasoning as an evolutionist, whence did the idea of a spirit or a *ravenant* arise? If ideas are evolved gradually, and like qualities and limbs tend to survival, how comes it that the great evolution of all in the sphere of mind should be a mighty, over-mastering illusion, leading no whither, producing nothing. Of what use in the battle of life could be such an illusory idea?"

"You might as well ask," replied Bleichroder, "of what use is the nipple in man, or rudimentary feet in the snake, or rudimentary wings in some flies?"

"The analogy is in my favour," said Claus, "for if the rudimentary limbs have fallen away because no longer of any use, why should a useless notion remain as a potential factor in the mind? Did the Creator put a useless longing in the mind of man for the purpose of tormenting him, for the sake, as it were, of keeping him on the rack between two worlds, a real and an imaginary one; or, setting aside the Creator as a thing to be done without in these advanced times, did evolution, which so carefully fits the animal to its environment, pruning away every superabundant limb or quality, find this dominant master emotion too much for its shears?"

"You must understand the action of the mind. These things are the effect of excess of nervous power. The dog's mind, when he sleeps, continues to act, and the result we call a dream; he dreams, probably, of a house where there are plenty of fat bones, and a master who does not kick and beat. In the same way, man dreams of a world in which there is good picking and no ill winds, and he continues his dreaming into his waking hours. But the dog's dream of a house where there is perfect canine happiness does not necessarily point to such a certainty; nor does man's instinctive yearning towards a state of perfect happiness necessarily presuppose such a state, except perhaps as the result in the far future of man's evolution in any state."

"I cannot quite see," replied the Professor, "why an instinct is considered in one creature to prove a fact, and in another to prove a superabundance of nervous energy only. When my goldfinch restlessly flaps her wings, and would fain fly away when the season of migration comes round, you say that fact helps to prove, not only that the goldfinch is a migratory bird, but that migration is a fact: is it not so?"

"Truly."

"And you, as an evolutionist, would deduce migration from the

goldfinches' habitual action, even if you had never known of birds migrating?"

"I think it might be so interpreted," replied the Doctor.

"But why give so much weight to this instinct in the goldfinch and other birds, if you deny any importance to the instinct of humanity? Why hold the restless wings of the bird as pointing to a far clime to which it is its destiny to fly, while you consider illusory an analogous impulse in man, whose mental wings are for ever flapping and straining as it were towards another life?"

"It is the premonition within himself of that ultimate perfection of the human race through evolution, urging him to do his share of the effort towards the final goal—to lay his tiny pebble in the vast pyramid, which is ever narrowing up to the ultimate man."

"And so," replied Claus, "all this aspiring and yearning of man's soul is simply a struggle towards a perfection of which he shall know nothing."

"Except by premonition," said Bleichroder, blowing out a whiff of smoke. "And to me," he added, after a pause, "to strive for such a purpose is nobler than to observe a prescribed code of morals with a view to inheriting a life of bliss in some future state: it is less selfish."

"It may be less selfish," replied the Professor, "but, Lord, what an expenditure of thought, yearning, and suffering to compass such a polyp-like existence!"

"True," grunted the Doctor, imperturbably watching the eddying of his own tobacco smoke. "But why," he added after a long pull at his comforter, "why would you have the human race live again? in order to perpetuate its follies in another life? Is it not enough that man should 'strut his hour upon this stage,' to use the words of your favourite poet, and air his little vanities here?"

"Ah, he would be purged of those in the transition of death," said Claus.

"Then would he be no longer man; for without the faculties that now distinguish him, he would cease to be what he is. Take away woman's vanity, her frivolity, her apishness, and her unteachableness, and what have you left?—not a woman!"

"Ah, now!" replied the Professor, "when you get on to that subject I can't discuss with you."

The Professor and Bleichroder had been fellow-students in their youth, since when the Doctor had wandered over half the world, during which time—learning much, and unlearning not a little—he had built up, on a broad basis of fact, perhaps not complete in all its courses, a theory of life and a philosophy all his own. He was of opinion that, although the human race had started tolerably well, it had, early in its upward career, suffered a bias from which it could not recover, and there was now no hope of it, except to begin all over again, either by an entirely new creation, or by a fresh start from the aboriginal monkey. It might be possible, he opined, to pick out a certain number of men who were so well-centred and

equipoised, that they might serve as the forefathers and Adams of a new race, were it possible to mate them with suitable Eves, which he greatly doubted, the intractable original bias being strongest in woman, while in her the possibility of correction was the smallest.

"You may take a boy," he would say, "and train him to almost anything, provided he be from a good stock; but you can't do the same with a girl; the perverse streak will come out do what you will."

Some, hearing his opinions of the fair sex, but not knowing him thoroughly, judged him to be a woman-hater. That, however, was a mistake; he had not enough of the atrabiliar in his composition to thoroughly hate anything. The barb of his satire, though sharply pointed, was not poisoned. There were those who averred that he had been jilted in his younger days, and that in consequence the whole feminine creation suffered for the sin of one fair but frail daughter of Eve. There was truth in the allegation, although, like popular opinions generally, it was a one-sided truth. The fact was, that as a young man he fixed his affections on a lady, who, to considerable pretensions to beauty, united an intelligence of the first order. She had received a good education, which had been enhanced by extensive reading and conversation, and so satisfied was Bleichroder with her position, character, and accomplishments, that he began to regard himself as one whose future was tolerably fixed; for he hardly misdoubted that if he asked she would consent to become his wife. But before he did ask, a circumstance happened which showed to him how narrowly he had escaped a pitfall.

Bleichroder was then not quite so singular in some of his opinions as he became at a more mature age. If he had been an Englishman he would have been called an "original;" and perhaps the term would have described him better than any other; for it was a peculiarity of his intellect that he went back to origins in everything. If he could he would have gone back to man's original unsophisticated state—to his unadorned, unaproned innocence. In every advance from that state, he saw man's nature becoming more and more depraved, the bias becoming greater and greater with each step he took towards civilization, which he described as the art of perverting his nature, so as to be able to live in unnatural conditions. The various steps in the descent he would describe when the humour was upon him, with something of a Swiftian *verve* and point. Men, he opined, were never intended to live too near together; they suffered both physically and spiritually by too close contact and juxtaposition; what they gained in sharpness and polish, they lost in simplicity and grandeur. The simple countryman, although tainted with the arts of civilization, was still a nobler being than the glib and shallow citizen: the one was ignorant, uncouth, perhaps brutal, but his feelings and emotions were deep and unsophisticated; while the other, to a superficiality of intellect that thought itself comprehensiveness, united a poverty of imagination that was only matched by a corresponding dearth of soul.

In this respect there was a gulf-like difference betwixt Bleichroder and his friend Claus Bromm; the latter regarding man's gregarious instincts as bringing out some of his best attributes, and as being, indeed, necessary to his highest well-being; and hence arose, between the two, frequent word-combats, which though they served to distinguish and emphasize the essential differences between their intellects and modes of thought, never resulted in either loss of blood or loss of temper.

Although almost at the opposite poles of thought in regard to some things, in respect to others there existed so much accord that they had ever been and remained the best of friends. Indeed, it was only the Doctor's friendship for the Professor, and his affection for his only sister, that kept him at Kaiserstadt; but for those ties he would (or so he averred) have long since retreated to the Western States of America, where, in the course of his travels, he had found the state of society more in accordance with what it should be, at least in regard to elbow-room. He confessed, however, that notwithstanding the simple unsophisticated state that largely obtained there, the faults of civilization followed the white man like his diseases, and especially clung to woman like the curse passed on our first mother. That was to Bleichroder the cardinal offence. He could have forgiven man his faults, but for the persistence of the woman's: they stood in the path of all amelioration. The chief, the typical sin he laid to her charge was her frivolous adhesion to fashion. It was this which had spoiled his matrimonial hopes, and which had made him a satirist and an iconoclast.

It happened in this wise. One evening, at his lady-love's house, which was situated in a charming suburb of Kaiserstadt, a quadrille on the lawn was proposed after supper, whereupon Bleichroder, not being a dancing man, devoted himself to a cigar in an arbour apart. As he sat there, mixing speculation with his tobacco smoke, his mistress passed before him hanging on a gentleman's arm. When she had gone by, he saw something drop from her; he thought it must be her handkerchief, and went to pick it up, but to his surprise he perceived it to be a *queue de Paris*. Had Bleichroder suddenly discovered in his Dulcinea a trace of homicidal mania, or a meretricious flaw, he could not have suffered a greater revulsion of feeling. He struggled for some time against his disappointment and disgust, arguing with himself that there was some mistake, that his mistress did not know it was there, that is, where it had been; that it was not a *queue de Paris*, &c. But it was of no use; there was the article, taken, as it were, almost in *flagrante delicto*. It was small—an only partially developed bustle, as it were—but it was a perfect specimen; and though you may argue away many things, you cannot argue away a cushion, dress-improver, or whatever may be its polite name.

Bleichroder found his way home that night a sadder if not a wiser man. Perhaps he was wiser; many doubted it. A few days later he left Kaiserstadt, and was heard of only casually, and at long intervals, for several years; and when he finally returned, and came

to settle in his native city, it was with the wound of the *queue de Paris* healed, it is true, but with the scar of it still upon him.

CHAPTER VI.

LEITNER AND ANNETTE.

Herr Nagelmann's lodger, Annette's suitor, was a young man of promise. Endowed with considerable native intelligence, he had made the best possible use of a University education. Originally intending to pursue scholarship as a profession, his plans had been suddenly changed, and his scholastic career cut short by the offer of a position in the famous banking house of Gluckschild and Company. This fact alone was proof of his being under the tutelage of the great god Luck; for, as every one knows, the Gluckschilds were careful neither to employ any one, nor to deal with any one, who, either personally or by relationship, could be supposed to be tainted with ill-luck. It was on this principle, rigidly carried out, that their great good fortune was based, or so, at least, they believed. Needless to say that they took into their establishment no poor men; poor men relatively to themselves of course they did; because a thousand a year was poverty to them; but men who depended on their weekly or monthly earnings, and lived from hand to mouth; men who had suffered bankruptcy; men who had speculated and failed; men, even, whose misfortune was that they had happened on serious accidents—to all such was confronted the legend: "The unlucky enter not here!"

Leitner owed his entry into the famous house to the fact that his father had been the instrument of enabling the house of Gluckschild to do a very lucrative stroke of business—almost the unconscious instrument—which, in the eyes of the Gluckschilds, greatly enhanced its value to him, because it showed that he was a lucky man. They signalized their recognition of the service by making him a handsome present, and by offering to put his son Adolf into the first vacancy that occurred, either in their head establishment at Kaiserstadt, or in one of their numerous branches, as he chose. The elder Leitner preferred, for the present, that his son should go into the Kaiserstadt house, as keeping him, if not exactly at home, at least within an hour's ride of home. The promised opportunity occurred in a few months' time, and accordingly one fine morning—about a year before the beginning of this drama—young Leitner found himself *en route* for Kaiserstadt, and in due course installed at a desk in the great house of Gluckschild & Co., and drawing a salary of fifteen hundred gulden a year, which, added to the thousand his father allowed him, made a handsome enough income for a youth of his unambitious nature—for Leitner was unambitious. Up to the time of his going to the University, Adolf had lived under the paternal roof, which was situate in the beautiful vale of the Necker, and he had so thoroughly

imbibed the spirit of rural life, that his whole and sole desire was to be able, as soon as possible, to retire to his native village, and enjoy the scenes, and pursue the occupations, endeared to him by early memories and family tradition.

The young man's connection with the Prediger House had been of only a few weeks' duration; he was the newest comer, indeed, and was only now becoming, as it were, one of the family. He made great headway, however, which may be attributed partly to his luck, and partly to his frank straightforward disposition, which had won for him at home and among his companions the nick-name of Gerade (Down-right) Adolf, a characteristic which was manifest on his frontal, and in every lineament of his face, but particularly shone conspicuous in his bright laughing eye, and in the lines of his mouth, which even when sad seemed on the stretch for laughter or love. If disposed to find fault, one might say that there was in the brown-locked, hazel-eyed Adolf, just a trifle too much of the disposition to be satisfied with love and mirth. The one had prevented him from making the headway at the University that he might have done; the other had brought him into the family circle of the Prediger House; for having one Sunday seen the fair Annette coming out of church, he had at once become entangled in her long flowing tresses, and had more than once afterwards been dragged by them to the door of the Gute Prediger, and at length into the house itself; for once, having followed the shining meteor of her hair, he saw a notice on the door to the effect that above there were apartments for a single gentleman to let, and at once resolved to take them. He found Nagelmann, the coffin-maker, but a dry, dull landlord, with seldom a word to say and never a laugh; nevertheless he put up with him, his rooms, and his lugubrious occupation, with the ease of a man who is philosophical from indifference, and, figuratively speaking, ate his breakfast off a coffin-board with the nonchalance of a Sir Thomas Brown eating a salad from a graveyard.

Leitner had soon learned to be on speaking acquaintance with Wirth Nussbaum, who had a "Good-day," and a good word for everybody, and good wine and good jokes for those who could pay for them; for Wirth Nussbaum had a certain dignity to support, the eyes of his neighbours being upon him; so that it did not do for him to be hail-fellow-well-met with all the world. Still he was no churl, but a wise fellow, with everything handsome about him, like Dogberry; one, moreover, that Gerade Adolf would gladly have called "father." The Wirth, however, did not take lightly to Nagelmann's lodger, although he spent his money royally, drank for good fellowship and without excess, and sang a good honest song that any man might hear. Now a good song was a thing that Nussbaum loved above everything, and if anything could have won him to like Adolf it should have been his melodious throat; but it did not, and so the way was thorny to Gluckschild's clerk—that is, the way to Annette's heart—until the advent of Fifine made a common centre about which all could move as in a small solar system.

After Leitner had met Annette twice or thrice in the Claus Brumm drawing-room, and he felt that he was becoming more and more entangled in her auburn locks, and in other less tangible but more potent meshes, he became suddenly conscious of an impediment to his happiness, and so for several days was little seen, and not much heard of. He came home late at night, and left early in the morning, and it was supposed that there was extra business at Gluckschild's. But on the evening of the fourth day, Downright Adolf made his appearance as usual at Brumm's door, to ask after the health of the family, and to pay his respects to the ladies. Fifine was picking up flesh, and brightening in colour, and altogether looked charming. Bear watched her like a jealous lover, and it did the heart good to see her feast her eyes on the fair girl, and to fancy that the only regret the good woman had was that the light of her eyes was not a wee baby, that she might hug it to her breast.

Leitner chatted with the women for a few minutes, but seemed ill at ease, as though he expected or wished for some one who did not appear. Presently the Professor entered with his hair all touzled up, a pen in his mouth, and his fingers daubed with ink.

"Ah, good evening, Herr Professor; I see you have been struggling with the ink-pot!" cried Leitner.

"Yes, and I think I have got the worst of it, as I generally do," he replied. "You are a stranger, Herr Leitner!"

"Yes; I had a little business on my mind," said Adolf; "and that reminds me that I have a little business with you, if you can spare me five minutes."

"Certainly," said Claus Brumm, leading the way into the adjoining room.

"This is my business," said Leitner: "I want to learn English, and I want you to teach me."

"That requires consideration," answered the Professor.

"Why?"

"Because, before I can undertake to teach you English, I must know what you want to learn it for."

"But does it matter to you what I want to learn it for? Surely not."

"Oh, yes," replied the Professor; "because if you want it for the purposes of your business, I can't teach you. I only know English from having studied Shakspeare, and Shakspeare's English would not serve you very well in commercial correspondence."

"But suppose I tell you I want to learn English in order to study Shakspeare—what then?"

"Why, I shall be most happy to teach you, the more so, because it will be a delight to me to lead you to appreciate in the original a poet whose works I consider next to the sacred writings themselves for wisdom and knowledge of the human heart. When shall we begin?"

"Gently, Professor! I must not deceive you: it is not to study Shakspeare that I wish to learn English; it is in order that Annette

may not have a tongue I do not know; and she, you are aware, is making great progress in the language under Fifine's tuition!"

"Aha! I see how the wind lies," said the Professor. "You begin to be fastidious and nice. You would fain be like the gourmand with his strange meats—try the smack of love in different tongues."

"You might say on different lips," replied the young man with a smile, and a faintly perceptible blush.

"You are apt in love's language," replied the Professor, "and I have no doubt will pick up English quickly, especially if you get your vocabulary from Annette, while I ground you in the grammar."

"But I do not want her to know that I am taking lessons until I can write her a letter in English."

"What will the Herr Papa think of your writing letters in English to his daughter before he knows whether you speak English? because I presume he would be particular in that respect."

"To speak English" is a euphemistic colloquialism in the Fatherland meaning to be rich; or used to be, for this, like many other things, may have changed since King William beat the French and became Kaiser. Therefore, the Professor's question was a hint to Leitner that the Gastwirth might have views regarding the eligibility of a would-be son-in-law, as well as in respect to the question of "cash, that's God's sole solid in this world" (according to Sludge), that it might be well for him to become acquainted with.

"That is all *en règle*," replied Leitner. "I have seen and had a talk with the Herr Papa to-day, and he makes no objection."

"Provided, of course, you have Annette's will," put in the Professor.

"Truly," replied Adolf. It did not look as though there would be any difficulty on that score when, after deciding about the English lessons (which were to begin at once), they joined the family circle, which had been augmented by the arrival of Annette; whose heart's best blood rushed to her face to speak her welcome; while her eyes were cast down for fear of the exuberant joy that was in them. They came up at his voice, however, and though the dancing Cupids in them were demurely veiled, they told to him who could read, of the Scotch jig in her veins. Leitner was like one intoxicated; but the intoxicant was his own spirits, distilled in the alembic of his own cranium, and out of his own red wine of life. He never sang so well, never played so well, never displayed himself in such a god-like form to the eyes of his mistress; who in her dreams that night heard again his ballad of the "Old World Chieftain," which next day she must needs ask him to write down for her. It was as follows; but it was the tune it went to that gave it its charm:—

"THE OLD-WORLD CHIEFTAIN.

"Have you heard of the Old-World Chieftain—

I cannot tell now his name—

Who felt strong inward yearnings

For something—perhaps 'twas fame?

- "He could not be filled with his dinner,
But went about mooning and sad,
Till some said he clearly was witless,
While others declared he was mad.
- "A grey-beard one day drew him
Aside to his hermit cell,
And told him a lovely maiden
Somewhere in the world did dwell ;
- "And if he could wed with the fair one,
His life would be happy and long ;
And together the world's sad wailing
They'd change to a glad sweet song.
- "Then thro' the wide world he went seeking,
But found her not anywhere ;
So at last he came home to his country
And threw himself down in despair.
- "At his feet played a maiden all lowly ;
Like rivers of gold was her hair,
Her eyes like the star-beams of ev'ning,
Her limbs, too, most comely and fair.
- "She brought dainty meats from her mother's
And placed them a row by his side,
And sang sweet ditties to soothe him
For the loss of his phantom-bride.
- "But he looked far away, nor marked her,
Till she went away weary and sad ;
Then the folk said he clearly was witless,
Or else he most surely was mad.
- "When the maiden was gone, and no longer
A halo of love round him shed,
He sighed and said, 'Surely this maiden
Was the one that I ought to have wed.'"

It was late ere the fresh night air, and the rapid use of his earth-measurers, calmed Leitner's excitement sufficiently to make it worth while to think of home and bed. Even when he had mounted to his chamber he found himself so little disposed to sleep that he determined to write to his friend and sworn brother Fafner, poet and theological student at Heidelberg. His letter was as follows:—

"MEIN LIEBER FAFNER,

"The old Cathedral clock has just chimed half-past one o'clock, and my bed is as the hand of the maker—that is (in order not to appear irreverent) Frau Grossbein, otherwise Wendel—left it; while the head that should ere this have moulded itself in the pillow's soft substance has as little inclination to repose as the vane

on your father's dove-cote, or the vanity of our common friend, Klotz. I have twice circumbilivaginated the town, as your favourite Rabelais would say ; singing the while with a voice to wake Dornröschchen, or the Seven Sleepers ; at any rate enough to make the neighbouring householders wonder if the Devil or Dr. Faustus had come. Nay, I even danced and pirouetted on the public path like any mad marionette ; and only arrested my whirling feet in order to give loose to my tongue, which was so charged and surcharged with verse that, though it limped amazingly, you could not have outfooted it in your finest frenzy. Even now I am only restrained by the thought of the sleeping household—and the garret ghost. By the way, I have not told you about our ghost : I must anon. At present I have matter enough.

"I fancy I hear you say 'Dear Fafner: In the name of all the saints, what is this great matter that needs so lengthy a prologue?' I am about to tell. But I charge you beforehand to tell no man ; no, nor any woman—not excepting my sister. Know, then, that I have at length put myself right with the father of my Annette. Summoning up courage, I approached him to-day, and found that though he has a deep voice and a somewhat terrible aspect, yet is he at heart much like my dear Annette, gentle and good. You know my manner : I told him at once, and without circumlocution, that I loved his daughter, and that I wished his consent to pay my court to her. He, at first, seemed somewhat taken aback, and I thought he was going to storm, for his visage darkened, as the minster clock does when a shadow crosses it ; but presently it brightened, and a look like my Annette's came into his eyes, something like a laugh with the suspicion of a tear in it, and he held out his hand to me and said : 'Thou art an honest fellow anyhow,' and tugged at me like a wrestler. Then we had a warm altercation ; for after I had told him how, having fallen in love with his daughter, I came to live in the house for the mere pleasure of being near her, I began to say something about my family, my prospects, &c. 'Nay,' said he, 'I want to hear naught about thy family, nor what thou hast in prospect ; for it is not these things my daughter will wed, if she be so minded, and I and the little wife agree, but an honest man ; and thou hast proved thyself an honest man by coming and telling me as thou hast.' 'It is but right,' I replied, 'that the one who would woo and wed your daughter should show that he is no beggar, but able—' 'Beggar me no beggars,' said he ; 'a man of the stamp thou hast shown thyself will not lack in his duty to his wife.' I essayed to get in a word, but it was of no avail. 'Get thee hence,' he cried at length, 'not a word more, and if thou winn'st Annette's will, thou shalt have her.' Then he wrestled with me again ; but before he let me go, he said : 'I had taken a bit of a dislike to thee, thinking thee a bit of a Rauscher, but it shows how a man may be mistaken even with his eyes open.'

"Such, dear Fafner, was my passage of arms with the father ; guess if, when I saw the daughter later—in the Herr Professor's apartment

—I did not love her the more. Never did she look so beautiful, never so modest; like a violet by the wayside, or a rosebud in a hedge. I was like one beside himself all the evening; I sang and played, and played and sang—what I hardly know; only it seemed as though the very air was music, and that my heart danced to its enchantment. I don't wonder, Fafner, at the poems you write, if you ever feel that in your blood and brain that I have felt to-day. It is like a deliquium of all the love poems poured into the veins, and there bounding along like a mill-race. Ach, mein Gott, that I, an unworthy man, should have such joy! Now I must lay down the pen, and turn on to my pillow. Good-night, dear Fafner! On second thoughts, if you like, you may tell Clärchen when you write, how happy I am.

“Deiner,

“ADOLF.”

The following postscript was added the next morning:—

“I begin to take English lessons of Claus Bromm to-day. You will wonder at this, knowing how well I know English; you will wonder more when I tell you that, not being able to tell the real reason of my wishing to take lessons, I pretended my desire to be able to write in English to Annette, who is studying English under Fifine. I could not tell him that my sole object in wishing to take lessons was to augment his income, could I? What say you to this duplicity on the part of your friend,—“A. L.?”

(*To be continued.*)

Facts and Gossip.

MR. JAMES COATES, of Glasgow, contributed a phrenological delineation of Dr. Nichols to a recent number of the *Herald of Health*.

SOUND AND COLOUR.—In the November number of the *Annales d'Oculistique* Pedrono reports in detail the case of a man in whom sound awakened a sense of colour. Many such instances are on record, but few have been so closely examined. In this case the same sound always produced the same colour. On one occasion a person speaking to him of a friend said, “Have you remarked his voice? It is as pretty as a yellow dog.” Pedrono's patient replied very seriously, “Not at all, his voice is red, not yellow.” Whereupon the bystanders roared with laughter. Pedrono found in his case that each note of the musical scale produced a sensation of colour; but, although his subject was an excellent musician, he was not able to define a special colour for each note. High notes were accompanied by brilliant, low by sombre colours. But if two consecutive notes of the scale were compared, the colours appeared nearly identical. In a perfect chord a single colour was produced. For instance, the chord in F major produced yellow, while that in A minor produced

violet. But in an imperfect chord some of the notes detached themselves with their proper colours, although very near the general hue. There was no appreciable difference between the colours corresponding to major and minor tones, between scales in sharps and flats. The same pieces of music played upon different instruments produced different colours, showing the effect of timbre. For instance, the Breton melody, *Appel des Patres*, played on a tenor saxophone, was yellow, on a clarinet red, on the piano blue. Intensity of sound produced distinctness of colour. With feeble sounds the colour seemed to show vibrating movements. Noises of all sorts provoked chromatic sensations, but the colours were always sombre, generally grey or brown. When the voice was used in a conversational tone the vowel sounds only were coloured, *i* and *e* being the most brilliant, *u* the most sombre, and *a* and *o* intermediate. The general hue depended upon the timbre of the voice. If the voice was very strongly emitted, the consonants became barely perceptible, the sibilants being brightest. Singing simply intensified these results, each voice retaining its characteristic colour. Blue voices were much the most numerous; green the most rare; yellow the most agreeable; red voices were not unfrequent. Of course, different voices represented all shades of these colours. As to the localization of the colours, all observers seem to agree that they are projected mentally to a point just above the supposed position of the instrument which is sounding or the person who is speaking, and without reference to whether the object is seen or not. A vibrating guitar string appears to be surrounded with colour, and a layer of chromatic air rests upon the keys of a sounding piano.

THE RIGHT DEVELOPMENT OF MAN'S FACULTIES.—In the make and nature of every man, however rude or simple, whom we employ in manual labour, there are some powers for better things; some tardy imagination, torpid capacity of emotion, tottering steps of thought, there are, even at the worst; and in most cases it is all our own fault that they *are* tardy or torpid. But they cannot be strengthened, unless we are content to take them in their feebleness, and unless we prize and honour them in their imperfection above the best and most perfect manual skill. And this is what we have to do with all our labourers; to look for the *thoughtful* part of them, and get that out of them whatever we lose for it, whatever faults and errors we are obliged to take with it. For the best that is in them cannot manifest itself best in company with much error. Understand this clearly: You can teach a man to draw a straight line, and to cut one; to strike a curved line, and to carve it; and to copy and carve any number of given lines or forms with admirable speed and perfect precision; and you find his work perfect of its kind: but if you ask him to think about any of those forms, to consider if he cannot find any better in his own head, he stops; his execution becomes hesitating; he thinks, and ten to one he thinks wrong; ten to one he makes a mistake in the first touch he gives to his work as a thinking being. But you have made a man of him for all that. He was only

a machine before, an animated tool. And observe, you are put to stern choice in this matter. You must either make a tool of the creature or a man of him. You cannot make both. Men were not intended to work with the accuracy of tools, to be precise and perfect in all their actions. If you will have that precision out of them, and make their fingers measure degrees like cog-wheels, and their arms strike curves like compasses, you must unhumanize them. All the energy of their spirits must be given to make cogs and compasses of themselves. All their attention and strength must go to the accomplishment of the mean act. The eye of the soul must be bent upon the finger-point, and the soul's force must fill all the invisible nerves that guide it, ten hours a day, that it may not err from its steely precision, and so soul and sight be worn away, and the whole human being be lost at last—a heap of sawdust, so far as its intellectual work in this world is concerned, saved only by his heart, which cannot go into the form of cogs and compasses, but expands, after the ten hours are over, into fireside humanity. On the other hand, if you will make a man of the working creature, you cannot make a tool. Let him but begin to imagine, to think, to try to do something worth doing, and the engine-turned precision is lost at once. Out come all his roughness, all his dulness, all his incapability; shame upon shame, failure upon failure, pause after pause: but out comes the whole majesty of him also, and we know the height of it only when we see the clouds settling upon him. And whether the clouds be bright or dark, there will be transfiguration behind and within them.—*Ruskin.*

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

H. E. W. (London, Ontario).—Your photograph indicates a good development of intellect. You are noted for your observation, memory, order, judgment, and power to organize. You are fitted for scholarship, and might have succeeded either as a scientific man or in literature and philosophy. Are naturally cautious and circumspect, respectful, rather hopeful, and quite kind in your disposition. You are quite frank and open-hearted, rather industrious, and anxious to succeed, and be thought well of; are also quite affectionate.

O. M. (S. Michele, Tyrol).—The gentleman's portrait indicates an unusually well-balanced character. He should be known for his high moral aspirations, for his affectionate disposition and general socia-

bility, and for an intellect of superior grasp and power. He is capable of making a good scientific man, doctor, or theologian. The latter would seem to be his bent. He has superior qualities for a speaker and for exposition. If he is not, or does not become, a specially gifted and noble-hearted man, he fails in respect to what nature intended to make of him. The photograph of the lady indicates much affectionateness of disposition and amiability, and a great deal of brightness and shrewdness of intellect, and much cleverness. She is very energetic, and can "stir up the waters" when necessary. What she needs to guard against chiefly is over-excitement, and too much intensity in regard either to action or feeling. The gentleman needs to check a too great tendency to ease, supineness.

W. H. B. (Macclesfield).—There is a favourable balance between the body and the brain, and a high degree of vital power and animal life. Are decidedly ambitious and anxious to do something to gain a name, and capable of strong will and determination; have a good perceptive, practical cast of mind, and could succeed in some scientific sphere; are quite combative and spirited in overcoming obstacles, yet cautious about getting into difficulties. With ordinary training you could succeed in any business requiring method and system. Should stick your stakes high, and work steadily, with the hope of eventually commanding respect and exerting an extensive influence.

G. L. (Lockington).—Your organization is well and evenly balanced, and you are not subject to many extremes. Your head is comparatively high and narrow, which is favourable to a high tone of mind. Are not much under the influence of selfishness or envy. A little more force of character would be an advantage to you. Will be characterized more for intellectual and moral power than for force and selfishness. Naturally cautious and honest in motives, but not always circumspect, yet will generally be firm, steady, and persevering. Are characterized for kindness and tenderness, and may become so much interested in others as at times to lose sight of your own interest. Intellectually there appears to be a predominance of perceptive power; will be governed by experience and observation. Are generally in earnest, but sociable and mirthful in company. Have an intuitive cast of mind, and will delight in the study of human nature. Cultivate the speaking talent.

C. J. A. (Horsham).—You need to guard against being too suspicious, too jealous, too depressed at one time, and too elated at another; against being too cautious and reserved; against working too hard—in a word, against going to too great extremes in regard to thought, feeling, or effort. You have good powers, both intellectually and morally, but they need to be carefully cultivated and controlled. You could succeed either as a doctor, a lawyer, a civil engineer, or in a commercial occupation. Be particularly careful not to get into a circumscribed calling, but devote yourself to something that will allow you to develop and cultivate your powers both of observation and of thought, which are about equally good.

J. A. B. (Whittlesford).—You have a temperament favourable to mental action; will be distinguished for brain power; and are liable to overdo in the exercise of the mind, and to spend too much energy through that channel. Must learn to take life easier, and go fishing when you can do so without extra strain to the constitution. Have extra abilities for scholarship or literature; are copious and generally correct in the use of language, and very precise and orderly in your method of study, and in your general habits. Your sympathies are strong and active, and will take great interest in the welfare of others. Can excel as a writer, teacher, speaker, or in some department of art. Are fond of beauty and style, and have a distinctly elevated and refined tone of mind.

S. E. K. (Brighton).—Your moral brain is the best part of your mental constitution. It is quite full in development, and leads you to take great pleasure in working in a moral direction. Veneration is particularly large, so that you cannot very well be an irreligious man. You have a fairly good intellect; you are especially fond of thinking and getting hold of new ideas. You have some constructive power and much taste, and should be employed in something that requires these faculties, if not engaged in that which requires scholarship and moral power. But you want more suavity of manner, more adaptability, and more instinctive knowledge of men in order to be able to use your gifts to the best advantage. Do not be quite so sharp and biting; more humorous and less sarcastic; sugar-coat your pills more.


J. W. (Ontario, Canada).—You have a good organization for living and enjoying life; are capable of developing more than ordinary physical strength, and should be known for your power to work and endure—when you get started. Intellectually, you are a shrewd, knowing man, with any amount of ingenuity and power to scheme and contrive. You know what money is worth, too, and how to get it, although not greedy, or of a hoarding disposition. You can be coaxed, but cannot be driven; are very cautious, but have not enough hypocrisy to deceive a child. Your religion consists in doing as near the right thing as you can, but you do not say much about it. If you had to strike a man you would strike hard, then you would pick him up and succour him. You are a much stronger friend than enemy. Your social nature consists chiefly in friendliness and domesticity. You love children and all young things very tenderly, and you dearly love your home and your own arm-chair.

J. B. (Saltaire).—You appear to have a good degree of the executive faculty; are not wanting in energy and capacity to work hard if necessary, and when your temper or spirit is roused, are able to put forth more than common effort. There is a good deal of kindness in your disposition, as well as considerable general moral feeling. Your intellect is a fairly good one, showing more than average perceptive and reflective power, ingenuity, mirthfulness, musical ability, calculation, and locality. Agreeableness might be larger with advantage.

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Phrenological Magazine.

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MM. ERCKMANN-CHATRIAN.

HE following delineations of the characters of the famous French novel writers, MM. Erckmann-Chatrian, have been written by Mr. Fowler, who, knowing nothing of their lives or writings, has been guided entirely by the likenesses :—M. Erckmann has a most favourably-balanced organization for both physical and mental exercise. He has a superior form of head and face. There appears to be a favourable harmony of power throughout. He has a high degree of the vital and mental temperaments, giving him a warm, ardent, earnest, active disposition, joined to great susceptibility and uncommon clearness of mind. Few heads appear to so good an advantage in a drawing. It is specially high and very fully developed in the intellectual and moral brain. He is able to take comprehensive views of all subjects, and to give a high tone to all he says or writes. He is truly a humanitarian. The moral brain being larger than the base or animal brain, he would be in favour of saving rather than destroying life. Destructiveness is not large ; severity would not be a prominent feature of his character ; on the contrary, Benevolence would mellow and modify his whole nature. He has all the indications of deep emotions and great sympathy. His head being unusually high and broad on the top, indicates sentiment, imagination, lofty and liberal, as well as humane views. His mind covers much ground, and takes in the whole subject, almost at once ; he can do nothing on a small scale, or by halves. As a writer, speaker, or orator, he would surely create a sensation and secure followers. Hope must be a powerful stimulus to action, and give great enterprise and buoyancy of spirits, which makes him live in the future and for it. Spirituality and Veneration are large, and elevate his mind above a mere physical and material consciousness, disposing him to live in higher ranges of thought than such as are connected with

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business transactions only. His conceptions of a creating power, and of a spirit land and life, would carry him far beyond creed and formalities. He has an extravagant love of the beautiful and the perfect, and perfection to him is far beyond and above that of ordinary artists and poets; language is too meagre for him to fully express it, and yet his power of expression, and ability to use a greater number and variety of words is superior to that of many eloquent writers. Sense of the sublime, the terrific, and awful is great, which would enable him to be dramatic, if not extravagant, in his style of presenting a subject. He has a power to portray



M. ERCKMANN.

the forces of nature and the almightiness of Divinity superior to that of most men. His high, broad, and long forehead, joined to his vivid imagination and spiritual conceptions, gives him great inventive and creative power. In fact, his superior gift is that of an inventor and originator. He is original in everything; he does his own thinking, and conceives more ideas than he could begin to work out or apply. His sense of the witty and of the absurd is great, and he must be much amused observing the ridiculous and absurd ways of others, and their senseless opinions. He has not only the power to reason and present the principles of a subject, but

he has superior ability to plan, lay out work, devise ways and means; to organize, systematize, and to give patterns for others to work by. His ingenuity takes an artistic and literary rather than a mechanical turn. His sense of sound is most acute, and he must have great love for music of the higher order. He has youthfulness of mind, is bland, and has suavity of manner. He has great insight into character, and understands human nature to the core. His talents are more philosophical and theoretical than practical and scien-



M. CHATRIAN.

tific. If he is severe in his conduct or criticisms, it is more the result of his high sense of justice, and clear conceptions of right and truth, than because of a hard nature. He is not naturally selfish, greedy of gain, cunning, or artful, but could adapt himself to such states of mind if required. M. Erckmann's is such a head and face as the phrenologist delights to study. If he has defects in his character, they are not seen in the form of head presented in the likeness. If he has unpleasant features in his character, they are the result of early associations, habits, and wanderings. Such an organization can better resist temptation, and live a truer life than ninety-nine out of a hundred.

M. Chatrian is very different from M. Erckmann. His

temperament is one that gives him more warmth, ardour, susceptibility, impetuosity. He is a critic, but a less discriminating one, the fire of his nature going into all he does. He is remarkable for his intuitions, for his knowledge of men, for his dramatic instincts, and for the rapidity and incisiveness of his sketches. He can depict a man or an action with a phrase. His language is not so full and overflowing as it is telling and to the point. He has more wit than humour; would deal in sarcasms more than in delicate satire. He can be remorseless in his hate, and when his indignation boils it overflows. He is a keen observer; has a good memory, is neat, fond of form, style, and beauty, and is tenderly susceptible to all that is young and tender in animal or human life. He is a man that looks at life in the concrete, and dwells upon it with the ardour and intensity of a lover and a poet. Few could rejoice a friend with a look, or transfix a foe with a word so thoroughly as he.

MM. Erckmann-Chatrian, the compound name of two French novelists, who have always written in collaboration with each other, and whose names are as indissolubly united as those of our own Beaumont and Fletcher. Emile Erckmann was born at Phalsbourg, in the Department of the Meurthe, May 20, 1822. He was the son of a bookseller, and after studying by fits and starts in the college of his native town, he proceeded to Paris to study law, but never practised that profession. He resolved to earn a living with his pen, and accordingly commenced a series of works of fiction in conjunction with M. Alexandre Chatrian, who was born in the hamlet of Soldatenthal, in the commune of Abreschwiller, in the Department of the Meurthe, Dec. 15, 1826, and who was an usher in the College at Phalsbourg when M. Erckmann made his acquaintance in 1847. From that time the two friends composed numerous tales, all signed "Erckmann-Chatrian," and characterized by such unity of composition that no one doubted they were the production of a single individual. At first they contributed *feuilletons*, which attracted little attention, to provincial journals, and wrote some dramatic pieces which were failures. They at length despaired of being able to gain a subsistence by their literary efforts, and accordingly M. Erckmann returned to his law books, while M. Chatrian obtained a situation in the offices of the Eastern Railway Company. It was not until 1859 that the publication of "L'Illustre Docteur Matheus" gave a certain amount of popularity to the name of Erckmann-Chatrian. Since then their reputation as writers of romances has been con-

stantly and steadily increasing, in consequence of a series of works containing faithful and graphic narratives of the manners and customs of Germany, and of the glories and military reverses of the Revolution and the First Empire. The titles of these works are: "Contes Fantastiques," 1860; "Contes de la Montagne," 1860; "Maître Daniel Rock," 1861; "Contes des Bords du Rhin," 1862; "Le Fou Jégof," 1862; "Le Joueur de Clarinette," 1863; "La Taverne du Jambon de Mayence," 1863; "Madame Thérèse, ou les Volontaires de '92," 1863—originally published in the *Journal des Débats*; "L'Ami Fritz," 1864; "Histoire d'un Conscrit de 1813," 1864; "L'Invasion—Waterloo," 1865; "Histoire d'un Homme du Peuple," 1865; "La Maison Forestière," 1866; "La Guerre," 1866; "Le Blocus," 1867; "Histoire d'un Paysan," 1868; and "Le Juif Polonais," a play brought out successfully at the Théâtre de Cluny in 1869, better known to English playgoers, as "The Bells." Among their more recent productions are: "The Story of the Plébiscite, related by one of the 7,500,000 who voted 'Yes,'" "Brigadier Frederic: a Story of an Alsatian Exile," "Maître Gaspard Fix; suivi de l'Education d'un Feodal," "Histoire d'un Conservateur," "L'Isthme de Suez," and "Souvenirs d'un ancien Chef de Chantier; suivi de l'Exile," 1876. Their three-act comedy, "L'Ami Fritz," was brought out successfully at the Théâtre Français, December 4, 1876, notwithstanding the discredit which the Bonapartists had endeavoured to cast beforehand on the piece, accusing the authors of want of patriotism, and sympathy with Germany. Most, if not all, of these works have been translated into English, and have won a wide and deserved popularity here, and in America.

L. N. F.

A CORRESPONDENT writes to inform us that a note in a published life of Beethoven states that when his body was exhumed the physicians in attendance were surprised to find that the skull indicated an absence of the organ of tune. So far as we know the note does not say who the physicians were, and whether they knew the locality of the organ. If they were like some of their brethren who have of late years written against phrenology, they probably did not. Of course, unless we could see the skull we could not judge about the presence or absence of the organ in it; but since the receipt of our correspondent's letter, we have examined all the available portraits and busts of the great musician, and they all, without exception, show the organ large. Moreover, a cast of face in our collection shows the organ to be exceedingly large.

PATHOLOGICAL FACT CONFIRMATORY OF
PHRENOLOGY.

THE two following papers (the first by W. W. Reid, of Rochester, New York), are reprinted from the *American Phrenological Journal* for 1841, because of their intrinsic importance. We shall be glad to hear from any one who can give well authenticated facts of the kind :—

"About the 1st of March, 1835, I was called to see a lad, H. M'A., aged eight years. He had been sick some twelve or fourteen days. His disease had approached very gradually, and had been neglected, owing to the sickness of his father, who had lain at the point of death for some time, and finally died but three days previous to my visit to the boy. I was informed by his mother that he had for several days simply complained that he was unwell; next that his head ached; then that he could not sleep at night, he heard so many strange noises. In short, he had inflammation of the brain; and, when I first saw him, had fever of a low grade; was pale, restless, wakeful, delirious; and was screaming, 'Oh, dear! oh, dear! My head! my head!' while his countenance was expressive of the utmost anguish. He would often seize upon a word that he heard, as when offered water he would repeat the word 'water! water!' from five to twenty times in the same sharp key or tone, which was exceedingly painful to the attendants who were compelled to hear it. In order to obtain some relief to my own ear, I would frequently pronounce some other word that he might catch it, and thus change somewhat the sound, which had from its monotony become so painful. Before he became so much reduced as he necessarily did from the disease and treatment, when asked where his pain was, he would uniformly place his hands upon the sides of his head, over and in front of the ears, and say, 'My head! my head!'

"Notwithstanding he was treated very vigorously in the outset, yet no amendment of symptoms took place till his head was shaved, and two large blisters were applied, one on each side of the head. These were kept open and discharging for two weeks. From their first application he gradually grew better, and finally recovered.

"As soon as he was sufficiently restored to be about his usual business, a remarkable change was observed in his character. Before his sickness he was quite noted in his neighbourhood for his manliness, kindness, integrity, and obedience. The father being a very intemperate man, the mother chiefly

supported the family with her needle. This boy was consequently employed to do a great many errands and other little domestic business usually done by older persons, such as making purchases at the market and groceries, procuring fuel, &c., all of which he did with correctness and fidelity. But after his sickness, when set about the same kind of business as formerly, he would keep part of the money given him from time to time to make purchases, and squander it for candy and trinkets. He would, moreover, borrow money in his mother's name, of the neighbours and grocery men, where he had been accustomed to trade, on pretence that his mother wanted it to pay rent, &c. In this way, too, he would obtain money, and clandestinely go to the circus, contrary to express command, and thus was continually cheating and deceiving his mother; yet when accused of the falsehood or theft he would never deny but readily acknowledge it, seem to be sorry, and promise amendment, but would straightway go and do the same things, till he became quite as notorious for his deception and dishonesty as he had formerly been for his candour and integrity. The mother, grieved and wearied out with his delinquencies, determined to send him into the country in order to remove him from temptation and reclaim him if possible. He remained some time, and returned somewhat improved, but it was six months, as she informs me, before he was fully restored, since which time to the present, he continues to be, as before his sickness, a good and honest boy. He is now fourteen years of age. The mother and boy are both still residents of this city, besides several other living witnesses, who can and will testify to the same facts.


"To the phrenologist who has turned his attention to the subject, and acquainted himself with the numberless facts of a similar kind that abound in every community, this case is neither new, nor remarkable, nor inexplicable; but to those who reject phrenology, and adhere to the old systems of Locke, Reid, Stewart, Brown, &c., it will prove a sort of Gordian knot that must be cut, not untied.

"The above communication is at your service, to be used for the benefit of the science and the public.

"I have several other cases of a different character, bearing upon other points of phrenology, which I may present at another time."

The following is an extract from a letter directed to Mr. L. N. Fowler, while recently lecturing on phrenology in one of the New England States. The letter was written by a very intelligent lady, the wife of a clergyman, and we are assured that the facts here stated may be relied upon as

strictly correct. Such facts, we presume, are by no means of unfrequent occurrence. Were the attention of persons properly directed to the subject, almost any number might be collected. Mrs. R—— writes thus :—

“For some months past I have experienced a very great degree of pain in my head, which I have endeavoured to account for phrenologically, for this reason, viz., that it was always attendant upon unusual excitement of *mind*. This pain has been so severe at times, that I have feared it might terminate in dropsy of the brain. Still, I cannot be satisfied with this conclusion, because the pain, though severe, frequently *shifts its position*, which I think would not be the case in dropsy. Since your lecture last evening, I have examined the subject more fully, and called to mind more distinctly the *particular location* of the distress, which I was better able to do from the extreme acuteness of suffering that I have lately experienced. Allow me first to ask one question, viz. : If pain be produced in the region of *one* organ which is *over-excited*, is it reasonable to suppose that, where there is great nervous excitability of temperament, several organs may be excited, and cause pain *at the same time*, or successively ? Now this is the fact respecting myself—when I suffer pain in any part of my head, there is perfect correspondence on *both sides* of it. I have felt it distinctly at these various points. In the region of *Constructiveness*, this has frequently been the case after I have been cutting out a large quantity of work, and racking my invention to do it in the best and most economical manner ; and also whenever I have been contriving plans or inventing games of amusement, or anything of the kind, for my children's profit or pleasure. Again, such are my circumstances, that great care devolves upon me—the education of my children, the management of my domestic concerns, the control and disposal, to a great extent, of our finances ; add to this, the absolute necessity of keeping up my spirits whether sick or well, in sunshine or in storm, in prosperity or in adversity. At such times the pain has been directly through the head, as it seemed to me, where the organs of *Combateness* and *Destructiveness* are located ; and I have felt like this : ‘*Die I may, but go forward I must.*’ When attending closely to any discourse, or reading on argumentative subjects that require deep thought, my forehead is subject to distress, and sometimes severe pain. I frequently suffer pain in the region of *Causality* and *Ideality* ; and could enumerate many instances of this kind. One more fact only will I now mention. I am troubled often with pain over the , and have noticed that whenever my children have dis-

arranged everything about the house, I am exceedingly annoyed, and after going about and replacing everything in order, *my head* is very sensibly relieved."

STUDY OF PHRENOLOGY MADE EASY.

CHAPTER VIII.

QUALIFICATIONS FOR A PHRENOLOGIST.

A phrenologist cannot know too much about nature; in fact, he must have a natural fondness for the study of both animate and inanimate existence, and be interested in all the changes that take place from time to time. The study of the instincts of animals, and their varied tendencies of mind, is a good introduction to the study of the human mind.

One of the most important converts to phrenological science in Paris was the celebrated anatomist, Dr. Vimont, who was selected by a committee to prove anatomically that phrenology had no foundation in fact. Two years were allowed him to prepare his paper. He commenced by the study of various animals and birds, and after a thorough acquaintance with them, he would dissect their brains to see the difference, and the more he studied and dissected, the more he became convinced that there was truth in phrenology. He asked for more time, which was granted, and after he had studied the character and brains of several hundred animals and birds, and had the skulls and brains lithographed, and his observations written out, he came before the committee and declared his belief in the science, much to their astonishment.

Dr. Gall, from a lad, was a close observer of animals, and had a variety of them about him in the house; besides, he caught many wild animals, and made a close study of them.

The animal nature, so far as it goes, is in harmony with human nature, for the animal passions and selfish feelings are the same in both, and their location relatively is the same, only the carnivorous animal has the selfish brain more developed than the herbivorous; while some animals have more perceptive power, and still others more ambition.

The student of phrenology can turn all the knowledge and experience he can get of all kinds of animals, birds, and creeping things to good account. To read about them theoretically is not enough. He must have the faculties and instincts requisite to study them. As the man out West said, he needs "horse sense," for there is a natural understanding

between some men and various animals, for they will let some men and children do almost anything with them, while others they will not let touch or come near them. There is a natural understanding between some animals and men. The natures of the two appear to be similar. Some have the knack of catching wild animals, fish, &c., while others have none. Dogs and other animals have the instinct to know their friends at first sight. Some dogs will shy off on to the other side of the street to shun a person, while others will come from the other side of the street to lick the hand of a stranger. That talent, disposition, or state of mind that understands animals is a favourable qualification to study mind and disposition on a higher plane. A student of phrenology must be a naturalist, a student, a child of nature with natural eyes to see things just as they are, and to be able to draw natural inferences. The student of phrenology should not be a theorist or a speculator, nor one who draws his inferences too quickly. Strong prejudices are in the way of the student of phrenology. He should not make up his mind beforehand, or allow himself to be biassed by what he likes or dislikes, for phrenology has nothing to do with him, but he has to do with phrenology. It is his business to look at things as they are, and draw his inferences from what he actually sees instead of from what he would like to see. A practical phrenologist should have no opinion of his own of an individual before he sees the person. More mistakes are made by deciding too quickly than too slowly. Many students decide on character from too limited observation; they have seen a part of what is necessary to make up their minds correctly, but not enough; a more extensive observation would have put them right. A fair amount of self-esteem is quite essential, for he should speak as though he had confidence in himself, yet he should be far from being dogmatical; he should be decided, yet not unbending or unwilling to reconsider, for phrenology has not yet been reduced to a mathematical certainty.

A previously biassed mind is not in a better condition to study nature or phrenology, than is an artist prejudiced against a picture, to decide on its merits. No one needs a more docile, receptive mind, than the student of mind. He needs to follow the light that nature places before him.

Honest conviction never dies, but takes hold of man's intellectual and moral sense. When an honest man is honestly converted to a fundamental truth, he remains a convert, for such conversion becomes a part of his nature. A student of phrenology must have honest eyes—unbiassed—so that he

can see things just as they are. It is right seeing that leads to correct philosophy. No one can see the whole of truth or science from the commencement of his observation. He first sees a little light and has a small evidence that he is on the right track ; he sees as through a glass darkly, but if he perseveres and is faithful, he will soon see more, and that more clearly. No one is more encouraged, or more honestly rewarded for their labour than the student of the mind.

Dr. Gall must have been in ecstasy all the time he was making his discoveries. To know for a certainty that he had defined a new faculty, and found the portion of brain through which it manifested itself, was much more satisfying to his mind than food and water to a hungry and thirsty body ; for there is nothing so satisfying as truth, or so encouraging as to know that we are on the right track of investigation. I cannot conceive of any one more strong, courageous, and confident than he who is *sure* he has the truth on his side.

The student of phrenology not only needs to be a sincere, patient observer, but he needs a good memory of what he has seen, for he sees by bits, months apart. If he were to forget as fast as he observes, his brain would need to be strong enough not only to receive strong and distinct impressions, but to retain them. Some brains are weak by nature ; knowledge passes through them like water through a sieve ; others have been rendered weak by an exhaustive or prodigal life, so that their vigour is gone, and the force of the nervous system is greatly weakened beyond recovery. A maple tree that is tapped while young and growing to get the sap to make sugar has lost some of its sweetness and strength of fibre. It may look healthy and strong, but it is not so much so as if it had not lost its sap. So men who have used more than a normal amount of vital force and nervous energy, especially in artificial or perverted ways, may have a full habit and a healthy appearance, and the development of the organs may be there, but the vigour and tenacity are wanting ; the mind may be active, and somewhat brilliant, but there will be a lack of solidity combined with a want of strength and clearness.

Having correctness of observation and strength of memory, it is also important to have the power of correct comparison, and ability to draw correct inferences when correct observations have been made. A student without the organ of comparison may observe correctly, yet be unable to compare, analyze, and combine. The order of nature must not only be adhered to, but when that observation is applied to one faculty, the mind should be able to see whether the manifes-

tations are similar and analogous. One fact must compare favourably with another fact. The manifestation of the faculty in one individual or animal will be the same in all individuals and animals, excepting as it is modified by age, education, and the combination of that with other faculties. Although each faculty is a distinct power by itself, the same as the functions of the body, yet they seldom act alone unless highly excited, or in an inflamed state. In youth, the organs are more isolated in their action, but as age, culture, and experience are brought to bear, the faculties blend in their action, and the mind is more harmonious in its workings. Perfection of character is secured by one faculty acting in harmony with another, and with all the other faculties, all being guided by the higher faculties. This state of mind is only brought about by long and continued discipline.

Size, other things duly considered, being the measure of power, the student must, after he has satisfied himself as to the quality, healthiness, and culture of an organ, be able to judge of its absolute and relative size, so as to judge correctly of the faculty it represents, for the faculties are to be judged of relatively as well as absolutely. If one organ is as large again as another organ, the inference is (all things being equal) that that faculty is as powerful again as the other. It does not follow, of course, that because two organs are of the same size that they are equally active and cultivated. As with the body so with the mind. A man may be well made and fully developed in muscle, organ, and function, and yet some muscles, organs, and functions be more efficient than others. The organs of two different faculties may be marked the same degree, and yet the one be much more efficient in action because it has been constantly exercised. The faculties in the base of the brain are usually more active according to their size than those in the coronal brain. The inventor, philosopher, and moralist will have the upper portion of the brain more active than the selfish, money-making faculties. It is one of the greatest impediments the phrenologist labours under to discern how much different faculties have been exercised and cultivated, for the skull does not always indicate it.

The practical student of phrenology needs to be quite im-
pressible and sympathetic, in order that he may be interested in the person examined. His social nature should be active, which greatly aids in giving warmth and ardour, creating greater interest, making what is said more infusive and important. Cautiousness should be rather large, so as to hold the mind in due restraint, and to give the whole mind chance to act; while if Conscientiousness were large, it would give

courage to say what he thought was true, even though unpleasant. Large Form, Size, and Locality are quite essential to judge relatively of the size and shape of the organs ; and in making up the character, Order, Calculation, and Constructiveness are brought into action by way of giving method and proper estimates. Great skill and tact are necessary in conducting a reading of character, so that good shall come out of it.

There are two sides to a character or two tendencies of the mind, the right and the wrong use of the faculties. It is better, all things considered, to talk as though a person were using his faculties as he ought, rather than as though he were not.

Any amount of caution may be given not to pervert the use of the faculties. The phrenologist needs to be as honest in applying the science as in learning, but in applying it he needs to allow his mind to be biassed in favour of the idea the person is doing as well as he can rather than the reverse. In other words, sympathy, properly modified, aids the phrenologist in reading character. Energy and earnestness are necessary to properly enforce and impress important truths as to cultivation of the weaker and smaller faculties, and the proper guidance of the stronger and more active ones. In short, a student of phrenology needs to be quite wide awake and in real earnest, as well as in love with the study, to take it all in, and be very judicious in applying it in making examinations and giving advice.

If the phrenologist has an uneven head, he is liable to take one-sided views of the subject, and be extravagant in the use of language, and indiscreet in giving advice. A man with a well-balanced head and body, organized on an elevated plane with good discipline of mind, and governed by moral principles, with a genial, sociable tone of mind, will generally be successful and do good. The head of a phrenologist should be narrow and high, rather than wide and low. The central organs of the brain should be large from Individuality to the occipital bone ; should be broad in the lower part of the forehead, including all the perceptive faculties, with large Language. The mental and vital temperaments should predominate, yet there should be sufficient balance of power and harmony of organization to avoid extremes or great bias of mind. A practical phrenologist needs not only to be wide awake, with all his wits about him, and all his faculties alive and active, for all of his own faculties need to respond to and recognise his fellow-creature being described, but he needs to be so susceptible as to be almost a clairvoyant, to "sense" the peculiar action and condition of each faculty, whether normal or abnormal, naturally strong or highly cultivated.

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

CHAPTER VI.

OF ORGANOLOGY AND ORGANOSCOPY.

Having shown by arguments *à priori*, that we ought not to be content with a general reference of the mind as *one* faculty, to the brain as *one* organ ; but that as we are conscious of diverse powers of mind, and observe that the brain is a various substance ; we may assume in both equally, a distinction of parts, though those parts may be ultimately so united as to become one ; we ought hence to seek at least to ascertain the relation of these several parts to each other. And having proved that the skull is modelled by the brain, and that therefore we may avail ourselves of the hardness and permanent form of the one, to discover what the softness and perishable nature of the other would not permit our finding directly, we might proceed now to the statement of those organs individually ; but it will be necessary previously to make a few remarks on the kind of qualities and powers for which organs may be expected, and the kind of evidence, and means of inquiry, which the nature of the science admits.

It is observed by *Helvetius*, that all new ideas come into the mind unexpectedly and by chance, that they cannot be sought or anticipated, a remark unquestionably just, for otherwise the ideas would not be altogether new. The commencement of every science proves this fact, but the progress of the same sciences also proves that, however gratuitously the elements of knowledge are given us, there is in man a power and an impulse to take the work of chance under the direction of his own thinking and anticipating mind. However few the data may be with which he is furnished, he instantly generalizes his observations, makes systems, plans experiments, fails in them ; is helped in his progress by new accidents, amends his theory, reverses it, discovers new properties and powers, and goes on daily in adding to the mass of his individual observations and facts ; but still he is unsuccessful in his attempt to bring these observations to unite and bear upon one great result. The lovers of science, in the course of its progress, naturally arrange themselves under two great classes, one of which seem to regard the individual facts they learn, as of no value, except as they lead to the one great idea they are seeking ; and these are the metaphysicians and

speculative philosophers. And they would willingly dispense with all individual things, and single phenomena, could they get at their theory and system without them. The other party consists of those who are searching in all directions for something new ; they hoard up every discovery with much indifference as to its tendency, regard the quantity more than the quality of their information, and absolutely despise all general views and notions of things. These are the experimentalists—the matter-of-fact men. But as their aim is still the acquisition of more knowledge, and as facts and things do not generally present themselves to those who do not seek them ; they have no means of acquiring further knowledge, but by arranging and classing that which they have already, generalizing, in some measure, their notions, and pursuing their researches by something like a theory and system, though it may not look far or be very complete. Thus it happens that, in the progress of science we are reminded of the ancient fable of "The Blind Man and The Lame Man," who were obliged to unite their powers in order to proceed on their journey. But the union, though necessary, is not cordial ; hence we see speculative and practical philosophers, as they are called, much more intent to decry the powers of their rivals than to borrow their aid.

Gall is an instance of this. Professing to be a mere observer of the phenomena of nature, he is a despiser of all speculation and metaphysics. And no one has suffered more than himself from this narrowness of mind ; for as, in spite of himself, he must have something like a theory and system, as he cannot state his observations but in general words, as he must draw something like a conclusion, he finds himself within the territory of metaphysics before he is aware of it. Here he shows himself disadvantageously, not having been in the habit of scientific reflection and abstraction. As he has not even a language adapted to the subject, no chart of mind previously drawn, he is utterly unable to generalize his observations with taste or propriety. Hence his doctrine has often an absurd and ridiculous appearance, which the possession of other than experimental habits and talents would have enabled him to remove. These remarks I thought necessary here, that certain gross defects (in the doctrine of which an account is to be given) may not prevent its merits of another kind being attended to, as both may be reconciled together.

In answering the inquiry concerning the powers and dispositions of mind, for which we may expect to find especial organs in man, Gall thinks it proper to ask : What is the world ? and answers shortly : It is that which is revealed to

our senses and understanding. The world is nothing to that thing which perceives nothing ; and it is, and becomes something, and is more or less to all sensible and thinking beings, according to the respective organs of sensation and thought with which they may be endowed. The animal is distinguished from the lower species of beings, by perceiving things without itself (*extra se*) by consciousness of such perception, and the power of acting, as it were, out of itself upon the external world. The animal perceives more or less of the external world, according to its organs of perception, that world being revealed to it by its organs of external sense. The sensations from without generate, or rather are metamorphosed, into ideas or thought, from the internal sense or organ, whatever it may be. In the higher excellence, and more perfect construction of this internal sense, which we may call the power of thinking, lies the superiority of man over the brute creation. Many animals surpass man in the delicacy and force of the external sense, yet man has more knowledge of the external world than they ; because he has a sense or organ to perceive more relations and modifications of that world than they perceive, in other words, because he has *mind* pre-eminently, if not exclusively.

What then are the modifications of the external world which man perceives by means of organs ; and which of these organs are to be considered as independent and self-subsisting ?

In general we call the power man possesses *understanding*, that of the animal, *instinct*. But, considered in themselves, instinct and understanding are not different. Power and sense are the basis of both. In both is impulse, which we name differently, according to a circumstance which is merely accidental. We call the impulse, which is understood by the subject in whom it resides, *understanding*. When we wish to express that the impulse is not understood, we call it *instinct*.

In men and animals we are alike compelled to assume the existence of an organ corresponding with every individual exercise of power. How otherwise can we explain the various distinct impulses or instincts of animals ? To answer that they arise from a necessity implanted in the very natural constitution of the animal is restating the difficulty, not answering it.

All inquiries into the nature of things take for granted the necessary existence of each individual thing, and seek to ascertain the relations and connections between the several laws of existence by which each thing exists apart ; so that one law or necessity springs from the union. Hence we derive the idea of instrument or organ as a mediating casual substance.

But it may be said, the instincts of animals arise from the feeling or consciousness of necessity ; but this consciousness, did it really exist, would not imply the power of acting conformably with its dictates. Besides, among what are called the instinctive actions of animals, are many which suppose an impulse beyond the sense of necessity or the feeling of present pain ; we witness foresight, the choice of means, &c. Neither are the manifold impulses of the animal world to be referred to one simple impulse, that of self-preservation.

There are also many phenomena in the history of man which oblige us to have recourse to a natural impulse or tendency to certain actions. There are instances in which an inclination to steal is found, which neither natural nor social wants can have generated. Affluent persons, nobles, and princes, have felt this impulse. The most abandoned and profligate people have evinced a singular attachment and fidelity in their friendships. And in individuals are found the most astonishing inconsistencies of character ; religious sentiment has been seen in a high degree united with gross immoralities, which imply contrary tendencies in the same character.

With respect both to animals and man, we can expect to find organs only for those distinct, individual, decided capacities and inclinations, which are the basis of the affections and actions of both. For the following appearances, therefore, we ought not to expect any organ :—

1. For those talents and capacities which are the result of a number of powers united ; as those of the poet, astronomer, &c.

2. For those powers and qualities which are common to all capacities and organs, and which therefore imply only different degrees of those capacities, as for instance :—

(a) *Susceptibility of impression* is common to all organs ; for the organ can be operated upon only by means of its being susceptible of impressions.

(b) *Memory*, too, is common to all organs, for it is founded upon, and subsists in the exercise of the organ ; we do not seek, therefore, for a memory in the abstract, but for a memory appertaining to particular objects, as musical, local, arithmetical memory, &c. And it is, in fact, found that the excellence of the memory of individuals is confined to those objects, the organs of which are in them peculiarly developed.

(c) *Judgment*, also, is nothing but a heightened sense produced by exercise, and referable to the individual objects and organs ; hence, in the distinct art and sciences in which men excel, we find they possess the soundest and surest judgment, though on all other matters their understanding may be weak

(d) *Imagination* or inventive power, is a still higher excellence, and *Genius* the most perfect development of that organ, or of those organs, in individuals, in whom one or more of them may be found in this exalted state. We find some men endued with specific talents, a sort of insulated ability, while others, from the variety of their powers, are denominated universal geniuses, however incorrect such an appellation may be.

3. For the different degrees of *sensibility*, as inclination, desire, passion—these must be referred to the individual organs, whose development produces respectively the various degrees of desire.

4. The *affections* likewise are but modifications of other organs. *Joy* results from the harmonious energy of our different powers : *sorrow* is the dissonance of those powers in their exercise.

5. *Conscience* has no distinct organ. As we observe that some persons can perform the most atrocious deeds, without evincing any remorse or uneasiness, we might infer, that conscience, too, had its peculiar organ, the want of which might occasion such observation. But conscience is too complicated to be referred to a simple organ ; its pleasing or painful impressions are the result of the concord or discord of our conduct with our notions, in which the most artificial and accidental motives take part.

In answering the objections made to the doctrine, that each definite impulse has its peculiar organ, Gall takes needless pains to obviate that arising from the freedom of the will, of which he gives a definition that will hardly satisfy any party. Freedom he considers as founded on the greater or less susceptibility of motives ; and man has more freedom of the will than other animals, because, in addition to all the sensual impressions, he can receive and obey the suggestions of morals, &c. In asserting the propriety of perpetually comparing man with the animals, he asserts, in opposition to *Cuvier*, that no animal has any organ in its brain which man also does not possess. Man unites in himself all the organs which are variously scattered and dispersed among the brute creation, and is therefore the representative of the animal world. But he has also organs in his brain which no other animal besides possesses, and these are the seats of those powers which are the prerogative and glory of the human race, as, for instance, *Theosophy*. Gall allows that it is frequently difficult to carry on the comparison in the anatomy of the human and animal skull, and frequently confesses his doubts, as for instance, whether the organ by which an animal has a love of high places, be the same which we find in man pointing out in him moral loftiness or ambition.

However Dr. Gall may, in spite of himself, speculate as to causes, and indulge in abstract statements, in his endeavours to render his doctrine intelligible and plausible, still in his proofs and direct arguments he confines himself to observation; and instead of boasting that he was generally fortunate in discovering at once the organ which he was seeking, he relates with satisfaction the many mistakes and false conjectures which he made before he succeeded in fixing upon the right explanation.

From his earliest infancy, natural history was his favourite study, and his great delight consisted in collecting plants and animals of every kind, and classing them, not according to the method pointed out in books of science, but according to their obvious and sensible differences. As he grew up, he fixed upon medicine to be his profession, and was led by an impulse, which he of course considers as the result of his peculiar organization, to the habit of observation and comparison. He was very early induced to remark the various shapes of the heads of his companions and fellow-students, and to connect these peculiarities with their moral and intellectual character. Having remarked in some cases a striking conformity between the general form of the heads of those who also resembled each other in mind and temper, he inferred the general character from the general shape of the skull; but unfortunately he found, on further examination, as striking a disagreement as he before remarked a certain correspondence in these observations. This forced him to retract his former general inferences, and be more precise in his remarks. He then began to direct his attention to the individual parts of the skull, and here he found less inconsistency in his particular deductions; but he was frequently forced to shift his ground in assigning the local organ he assumed. At the same time, he called to his aid the observations of comparative anatomy and professional experience; and after many years long and constant observation, he thinks himself justified in giving the result to the public, as facts proved by experiment, not as principles or rules susceptible of demonstration.

It may be useful to state more precisely the rules of observation by which he challenges the public, and particularly professional men, to try his statements; having faith in the uniformity of nature, trusting that what he has long uniformly seen, others will also invariably remark.

1. By a close observation of living persons in a state of health, carefully feeling and correctly noting the eminences on the skull, each of which he considers as an organ, using

that term in expressing the *continens pro contento*; and considering that only as skull which immediately covers the brain.

This observation has taught Gall, that persons eminent for certain talents have certain eminences on the skull, the seats of which are capable of being ascertained and pointed out;* while those who are altogether destitute of such talents, have a sinking or depression of the skull on this part. In order to make this experiment with success, Gall recommends it to be tried, not on common every-day persons, but on those who are marked by strong peculiarities of mind and character: for perhaps every man has every kind of talent and tendency, though in so slight a degree as to be unproductive of any effect, from the stronger influence of other powers: hence the difficulty of determining the peculiarities of those who manifest mediocrity in all things, eminence in none. He also prefers subjects uneducated and uncultivated, as the natural tendencies of their character have been left more to themselves, while the polish of social life tends to rub off the prominent peculiarities of individual formation. In feeling for the organ, he recommends the use, not of the fingers, but of the middle of the palm of the hand; and declares that habit, as well as a certain natural delicacy of tact, is necessary to qualify a person to make these observations with certainty of success.

2. But some of the organs lie at the basis of the skull and on its lower surface; these must be sought for after the death of the subject.

3. The observation of persons during a state of disease. This is particularly applicable to diseases of the intellect: it furnishes Gall's Theory with some of its best arguments and illustrations, and suggests some important and estimable practical benefits which may be drawn from it.

Insanity is, in the opinion of Dr. Gall, a disease of the brain; and as we observe a sort of partial insanity, so Gall is of opinion that parts of the brain may suffer a peculiar affection, while the other parts are left comparatively in a healthy state: but that the whole brain would be in a very dangerous condition, is as obvious as the want of confidence in a person lunatic or partially insane. Supposing there is in the brain generally a tendency to disease, Gall is of opinion that the prominent and eminently developed organ would be peculiarly liable to be affected. Hence Gall asserts an ability at all

* But only to an experienced observer. Gall deprecated the hasty and presumptuous style of *organ hunting*, by which many of his disciples exposed themselves and the doctrine to ridicule. He wished to confine to professional men exclusively the practice of the art.

times to determine, upon an examination of the skull of a lunatic, in what way his insanity betrays itself, even if such lunatic should have avoided every actual expression of it. In mad people who have fancied themselves to be God or Jesus Christ, or at least inspired prophets, as well as in those who suffer the agonies of religious despair, he has uniformly found the organ of Theosophy. Thus it is, that the fixed ideas of the insane are determined by their organ: and wherever any organ is found in a very high degree, there is always danger lest a disease of the brain should produce a corresponding madness: at the same time it is possible, that where the profession and habits of men lead them to exercise a particular organ, and set it in a condition of great activity, though by nature there may be no peculiarly marked organ, yet that the disease may fix upon the organ so put in activity. And as the influence of life and habit upon the organ is as sure as that of the organ upon life, Gall advises that in many cases persons should try to resist the tendency of their minds, by following pursuits altogether the reverse: for instance, if he knew a young man of a melancholy turn of mind, full of nervous sensibility, conscientious and scrupulous, in whom also the organ of Theosophy should be found in high degree, instead of allowing him to follow what would probably be the bent of his inclination, the profession of divinity, he would urge him on the contrary to pursue an active life.* This observation has led Gall to the application of cooling remedies on that part of the skull where the organ lies, from the diseased activity of which the disorder proceeds. It being the same thing whether we affect the habits of thought and ideas by diminishing the activity of the physical organ producing them, and whether we diminish the activity of the organ, by forcing the mind to other pursuits; that is, by rousing other powers, and setting other organs in motion.

4. By observing the influence which wounds and injuries of the brain have upon the intellectual powers and inclinations of men.

But this rule of observation is rendered very uncertain, from the impossibility of determining with accuracy the part of the brain which is affected when we know the part of the skull which is injured: and even if we discovered an injury in the

* I cannot avoid noticing here that many years since, the greatest poet of Germany, Goethe, in his admirable novel "Wilhelm Meister," taught this same important lesson, certainly on very different grounds. He introduces a pathetic case of insanity, arising from a father's determining the profession of his son by his ruling passion; and he indirectly suggests the wisdom of often counteracting rather than obeying the inclinations of early youth.

brain itself, still we could not infer which organ had sustained most injury, as in cases of wounds it is often found that parts of the brain not immediately wounded, suffer more in the dissolution or destruction of their organization than the parts directly touched and wounded. After the brain has been so shaken as to occasion death, it has frequently happened that nothing could be discovered but a diminution of mass. In such cases we cannot possibly say that the brain has not been disorganized, and yet the place of the disorganization cannot be pointed out. This also applies to the observation of the effect arising from the application of topical remedies to the skull, in cases of insanity, where fixed ideas prevail, &c. ; and yet Gall requires that this circumstance should not be neglected in determining the organs. There is another objection to the inference which might be drawn from wounds and injuries, in ascertaining the seats of the different organs ; and this arises from the duplicity of those organs. For as the organs for the operations of the mind, as well as those of animal life, are double, it may easily happen (particularly when they do not lie near each other) that one of them only may be injured ; and thus the function may be continued, though one of its organs is destroyed, as the sight remains after the loss of one eye.

This is the reason why the experiments of *Arnemann*, and those instituted by the Academy at Dijon, in order to determine the seats of organs in the brain, by destroying certain parts of it, were so little satisfactory, and led to no important discovery.

Further, as we experience that a diseased state, and the diseased irritation, will cause an increase as well as a diminution or annihilation of its activity ; hence we must avail ourselves of such phenomena after the wounding of the skull and brain, with great caution and restriction.

5. The comparison of the skulls of animals with their powers and qualities ; and also of both of these with the skulls and powers of men.

It is true this part of comparative anatomy has been much neglected, and it is difficult to determine the relative parts of each : still much may be learned by such a comparison ; as for instance, we find the musical organ very strikingly in singing birds, that of slaughter in carnivorous animals, &c.

6. We may avail ourselves of impressions in gypsum of heads and skulls.

This is a valuable substitute for the natural skull, and when a number of them are brought together, more particularly of public characters, men eminent in the arts and sciences, the

comparison of so large a number cannot but lead to important results.

7. It is useful to observe the gradations of eminence and perfection in which the distinct organs are found in the various classes of animals. Dr. Gall states the following facts as results :—

(a) That the more homogeneous the mass of any organic being is, or the more an animal approximates to a plant, the greater is its power of reproduction ; while this power declines, and life concentrates itself, the higher the nerves and brain advance in this development ; so that in the more perfect animal, man, the power of reproduction is confined almost alone to the bones, hair, and nails. It follows from this that the brain has no share in supporting organic life.

(b) That the organs of animal life in the various kinds of animals proceed from the spinal marrow.

The connection of the organs of organic and animal life takes place on that spot of the *medulla oblongata* where the pyramids cross (in the neck). Hence this spot is the most mortal in man and beasts. In most countries, huntsmen, butchers, and cooks are acquainted with this. Even the falcon is instinctively led to strike its prey on this very spot, either with its beak or claws. But still we are not to consider this point as the organ of vital power, or the vital principle, as that is merely a fiction, and nowhere really existing. Immediately above this spot are those organs which are of first necessity and importance in the support of existence : on the basis of the brain are the organs of the sexual passion, parental and filial affection, and the organs of sense. The more the animal advances in perfection, the more the organs ascend, as it were ; so that those which are peculiar to man, lie upon the summit of the brain.

(c) That those organs whose functions are analogous, as for instance, those of the sexual passion, love of children, &c., adjoin each other.

After the preceding statement it is needless to add that Gall considers the inquiry concerning the seat of the soul to be idle and absurd : but it may be right to remark that he objects to the hypothesis of Sömmering, that it lies in the liquid found in the fourth ventricle, for two reasons. First, that not all the nerves end in this ventricle, viz., the auditory nerve does not ; and, secondly, that the existence of this liquor in the living and healthy state of the subject has not yet been proved.

It may be proper to add that experiments were made at Mayence on persons guillotined. The brain was opened im-

mediately, and no liquor found in the ventricle ; it may therefore be an accumulation of vapour or gas taking place after the death of the subject.

FIFINE AND HER FRIENDS ;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER VII.

THEORIES OF EDUCATION.

"Didn't I tell you, you foolish old Bear, that our Undine would bring us luck and not misfortune," said the Professor to his better-half, when, the morning following the events recorded in the last chapter, he told her about his new English pupil. "You must not croak any more, Bear, you must not really ; our star is rising."

"Ah, well," replied Bear dolefully, "if it will only rise high enough to let me get a new dress ! I'm positively becoming not fit to be seen."

"By whom, my dear Bear ?"

"By anybody."

"But if you are still a delight to me, even in your old dresses, why should you trouble ?" saying which the Professor sidled up to his better-half, drew her face to his, and gave her a couple of hearty kisses. "There !" he said.

He was going to say more, but Zerafine came blundering into the room, whereat both he and Bear blushed like a brace of young lovers.

"Well, you're a nice one, kissing your wife behind the door like that ; you ought to be ashamed of yourself," said Zerafine, who thought she ought to say something by way of showing her regard for the morals of the household, and did not know exactly what else to say.

"Nay," replied the Professor, "the shame would be if I were found kissing somebody else's wife behind the door."

"But you ought to know better," answered Zerafine, her face broadening for a laugh.

"And so we shall when we arrive at your years of discretion, Zerafine," said Claus ; whereupon Zerafine ran off, with her laugh "full on."

"Now, thou good old Bear," said the Professor, "go you and see that the faithful wench does not crack her sides, and Leitner's first money shall go to buy you a dress wherein to receive that worthy fellow himself, and Bleichroder, and the rest."

"That is unkind," said Bear ; "if I want nice dresses it is that I may appear nice for you, and—and do credit to you."

"I thought that was coming. It is a good addition; it is like a woman's postscriptum; it contains the whole matter," said Claus.

"Well, you know that I think more of pleasing you than anybody else," replied Bear.

"Nay, that plea won't help you, you good-for-nothing old Bear," said the Professor, giving her another caress, "for you know I like you as well without a dress as with one."

"Then Leitner's money shall go to buy my dear Ratze a new pelt, for the old one is getting so brown and threadbare that I am ashamed to see my dear old crabbed Claus in it!"

"No; a Bear's hide first," said the Professor.

"Not so; a Pelzröckchen for my grey old Ratze!" cried Bear.

"Bear's hide!" answered the Professor, as he went out of the door.

"Pelzröckchen!" cried Bear after him.

Perhaps the reader may wonder why these two amiable creatures called each other by such uncouth names as Bear and Rat, although the latter was only used as a term of special endearment. Who can tell? Maybe for a similar reason to that which causes Siamese and Burmese mothers to call their children by such names as "That-Dog-there," "White Monkey," "Dog's-bone," and the like; they being afraid that if they called them by pleasing names they would be the more likely to become objects of the evil designs of demons of earth and air, popular superstition leading to the belief that these evil spirits are always on the watch for human beings to destroy, and naturally find the youngest the easiest to get hold of; and hence give their children these ugly names at birth, so as to provide, as far as possible, against this danger by rendering them contemptible to the demon; or there may have been in the habit something of that love of contrast which likes to put things of opposite natures and qualities in juxtaposition, so as to enhance relish and enjoyment, as great drinkers saturate their palate with salt viands in order to the greater enjoyment of their potations.

When the Frau Professorin returned into the living room she found Fifine seated on the floor, teaching her dog "to beg"—the only vice in man which becomes virtuous in a dog, unless we class therewith that abject dependence on the great man that makes his principles as easily assimilable as his broken meats.

But the story of Fifine's becoming possessed of a dog forms an episode that must needs be narrated. Since she and Annette had become such fast friends they were seldom apart; they read together, worked together, and walked together. It was some time before Fifine could be induced to go out of doors at all; she was happy under the Claus Bromm roof, and did not want to leave it; she had besides an indefinite fear of being sought for, and in consequence a feeling that she ought to keep in some kind of hiding.

However, it was represented to her how needful it was to bring back the roses of perfect health to her cheeks, and so she was prevailed upon to accompany Annette now and again on a short walk

by the river, or along the promenades. Her favourite walk, however, was over the Devil's Bridge, which seemed to exercise a sort of fascination over her. Perhaps it was the sound of the hurrying, tumbling waters that attracted her, or it may have been their impetuous rush. There are many and recondite reasons for our preferences as for our dislikes. For one thing, however, Fifine liked the bridge because it led to Weinberg, with its stillness and dreamy quiet; and there was something in alternation from the silence and solitude of the vineyards to the rush and hurry of the river, and from that to the business and turmoil of the city, that was pleasing to her mind, which delighted in sharp contrasts. Annette liked better to take her walks along the city's garden zone. Once, as the two friends were recrossing the bridge after a walk through the vineyards, they saw a man tying a bit of string, to which a stone was attached, about a miserable-looking dog's neck. The poor brute seemed to understand its doom, and whined piteously. Fifine asked the man why he was going to drown the dog; he replied, because he wanted to get rid of it. "Then," said Fifine, "pray give him to me." The man agreed, and Undine had the satisfaction of leading home as ugly and as uninteresting looking a mongrel as ever escaped drowning.

"What shall you do with him?" asked Annette, as they wended their way home.

"I shall keep him, and make a pet of him," replied Fifine.

"And what shall you call him?"

"Beauty; in order to show people that we despise that quality."

"By the same rule of contrary," said Annette, "you might call him 'Ingrate,' for he shows himself to have a grateful heart."

"Ah," said Fifine, "it is easy to lick the hand when favours are fresh and new; but we shall see when the freshness wears off."

Arrived at the "Gute Prediger," Fifine stopped on the threshold and cast a thoughtful look on "Beauty." He seemed to know that his fate was in the balance, for he turned up an appealing pair of eyes, and licked the hand that held his hempen cravat.

"Why do you stop?" asked Annette.

"I have been reckoning without my host," said Fifine. "What if Zerafine won't have him? She does not like animals, and hates anything ugly."

"If she objects to him, I will take him in for you," said Annette.

"You're a good little thing, Annette," said Fifine, "but I must try what coaxing will do."

It did not take much coaxing to overcome the objections of the little old-fashioned Zerafine. She criticised his appearance, wondered what a young lady could find to admire in him; opined, if she wanted a pet dog, she might have found one with more pretension to good looks, &c., but finished by finding one thing in his favour, his good-natured look.

So the poor brute was installed as Number Five in the Professorial household, where he soon showed the improbability of his dog nature by quickly responding to the attentions paid to his physical wants.

If he did not become actually sleek, he showed fewer angularities and rugosities. But the greatest improvement was manifested in his spirits. He became lively, and even gay, and lost much of that abjectness of aspect which was at first his chief characteristic. His barometrical, or rather animometrical, tail-indications were generally at "fair;" they seldom got as low down as "zero." They reached their lowest point whenever he approached the Devil's Bridge, over which he could never be prevailed upon to walk. The depression was almost equally marked whenever he was taken up to the fifth floor, for which for a long time he had a most remarkable antipathy. Zerafine thought that he had seen the ghost of the mansard, for she said animals, and especially dogs, had the faculty of seeing spirits when human beings could not. Whatever the cause, such was the fact.

Beauty had not, so far, made much progress in the new tuition to which he had been subjected, but he had received the ground-work of a good canine education, upon which in good time, no doubt, a fair superstructure would be built under the gentle method of his accomplished mistress, combined with that of the practical Zerafine. Fifine was guided entirely by the moral suasion idea; her reward was a caress, her worst punishment a frown—a system, Zerafine opined, which was not fit for dogs or doggish men. Her system was moral suasion, with a difference; the difference being the handle of a clothes-beater judiciously applied. All Fifine's lessons were repeated in her absence with this added stimulus. As no one knew of this but Zerafine herself, Beauty's mistress was allowed to take all the credit of the brute's budding parts.

It was a pretty sight to see the beautiful young lady, with her pensive face framed in the golden aureole of her hair, down upon the floor, putting her unhandsome pet through his "facings." Beauty was stupid this morning, and though his mistress's hand was ready to give support when needed to keep from a fall, he seemed quite unable to balance himself on his hind quarters. A commanding index finger, accompanied by a delightful little frown, was several times raised, but in vain. Beauty pleaded as well as mongrel could: "I can't sit up to-day."

"Sit up, doggie," coaxed the Frau Professorin, who had silently taken a seat to watch the lesson; "sit up like a good little dog, and then Bear will try to find him a bit of bread and butter."

Beauty pricked up his ears, but dropped his legs at these soothing words.

"I shall really not love you, Beauty, if you do not try to learn," said Fifine, with another little frown.

At this juncture Zerafine entered the room, unperceived by either of the two women, whose attention was fixed upon the dog, and took up her position behind Fifine. As soon as Beauty caught sight of her squat little figure and sharp eye, a sort of electric shock ran through his frame, and he became all attention.

"Now, Beauty, sit up like a good dog," said Fifine, in as austere a voice as she could command.

Beauty hesitated for a moment, but casting up his weather-eye at Zerafine, he saw that damsel's lightning-glance travel quickly to the wall where the clothes-beater hung, and back again to him, and he hesitated no longer, but sat up like a lamb, as Bear expressed it.

"There's a good dog ! Now beg," said Fifine.

But Beauty thought he had done enough for one lesson, and again showed hesitancy. Before absolutely deciding to disobey, however, he again turned an inquiring eye upon Zerafine ; there was no misreading her look, and he straightway " begged."

" There, that will do for to-day," said Fifine, patting his intellectual region ; then turning, and catching sight of Zerafine, exclaimed : " Why, I did not know you were in the room, Zerafine !"

" Nor I," said Bear.

" Didn't you ?" replied the little Machiavelli. " What a splendid lesson you have had ! Beauty gets on finely. You will soon be able to have a show in the fair, and exhibit him for a groschen a head !"

" I don't know how you have the patience," said Bear. " I should beat him when he was so stupid."

" I think I should too," said Zerafine, a mischievous laugh dancing in her dark eyes, which to have seen them then only, one would hardly have credited with the power to deal blows like a battledore.

" Now, I must go and see my other pupil," said Fifine, and kissing Bear on both cheeks, she went on her errand of mercy ; speeding upstairs like a beam of light, and like a beam of light glancing through the door into the little chamber where Fritz sat, pale and sad-eyed, in the window-seat, looking like a Peri at the gates of Paradise, the great world of out-of-doors, with its sunlight and life, being to him almost a forbidden Eden. He was busy with his pencil, and a rough sheet of paper, trying to sketch the cathedral tower. It was a bald attempt, however, light, and shade, and perspective, quite escaping him, through lack of technical skill. Fifine sat down beside him, took his pencil, and gave to his crude drawing reality and life.

" That is better, is it not ?" she said, holding the sketch at arm's length, and examining it critically. " What do you think, Fritz ?"

But a sob was his only answer. Turning round quickly, Fifine saw large tears rolling down the poor boy's cheeks.

" What is the matter, Fritz ?" she asked, throwing her arms about him. " Tell me why you weep."

No answer ; only more sobbing and more tears.

" Come, Fritz, this is not the way to become a man ; you must be made of tougher metal."

" I shall never be a man, or be able to do anything worth living for," at length exclaimed the boy, between his sobs.

" You won't if you give way like this ! Come, cheer up, and I will tell you a little story I heard in England, which you must always remember when you feel in a desponding mood."

The April shower of his emotion soon passed, and seated at the opposite end of the window-seat, he listened with intense interest to Fifine's apologue.

"THE BOY BUILDER.

"Once there was a little boy," Fifine began, "whose parents were very poor, and who were consequently obliged to work so hard, and such long hours, that they seldom had any time to give to their little son, who was therefore very much alone; for they lived quite outside the village, and the only house near was that of a rich man, whose children were not allowed to play with the poor cottagers' child. One day, however, as he chanced to pass by, the rich man's gate stood open, and Tony, looking in, saw several children playing on the grass in front of the house. They seemed very happy, and poor Tony thought how nice it must be to have companions to play with, and plenty of toys, like them. One of the toys that particularly took his attention was a miniature house, which the elder of the two boys was building with little coloured stones—red, green, yellow, blue, and white, square and oblong in form. It looked wondrously beautiful to Tony, and he ventured a step or two within the gate to see it a little better; but then a servant came, and shut the gate, and the poor boy went home very sad.

"For several days the little coloured brick house haunted him, so that when he went to sleep he dreamed of it. How he wished he could have some coloured stones like those the rich man's children had! How delightfully the days would pass building up his little house! And how it would please his tired father and mother when they came home of nights to note the progress he had made during the day! But, heigh-ho! there were no such pretty things for the poor man's boy!

"'And why not?' asked a tiny little creature, with gossamer wings, and bright blue eyes, suddenly appearing before him as he sat on the doorstep enjoying the spring sunshine. 'Why not? Are there not coloured stones in the brook?'

"'Yes,' said Tony, after he had recovered from his astonishment at seeing so beautiful a creature; 'but they are round.'

"'But if you were to rub them on the stone step here they would become flat in time, wouldn't they?'

"Tony had not thought of that, and he told the Fairy he would try. So he went down to the brook, and sought very hard, but he only succeeded in finding two stones of the proper colour. Next day he went again, and only found one. This discouraged him rather, and he did not go the third day.

"Then the little Fairy appeared to him again, and asked him if he had found any stones, and he showed her his three: 'That's all there is,' he said.

"'You mean, all that you could find,' said the Fairy.

"Tony said 'Yes,' although he could not see the distinction.

"'I should go again to-morrow if I were you,' she replied, with a pleasant smile; 'and when you have found five, and rubbed them down so that they will lie one upon another—one of each colour—I will double them; I can do that with my fairy wand.'

"The next day Tony went down to the brook again, and searched very diligently, so that by night he had completed a set of five of the proper colours. This gave him great courage, and he spent the following day very cheerfully, rubbing them on the door-step to make them flat on both sides and ends. Then, having completed his task, he sat down and looked out for the Fairy. But she did not come that day nor the next, and Tony began to ask himself if she could be a deceitful little Fairy. He thought, however, one so beautiful and one so good-looking could not be bad, but must have been detained at home by something or other; and so, on the day after that he again went to the brook, and again began his search. By good luck he found three more stones—white, blue, and red. Overjoyed at his good fortune, he skipped home as happy as any rich man's son; but what was his surprise when he got there to find his other five stones turned into ten! That was joy indeed!

"It took several days more to make up the second five; and when completed he sat down beside them, so as to see how they became doubled. But he spent his time in vain; nothing happened. Then he went to work and gathered another five—all different colours—and put them with the rest, thinking how hard they were to find and fit together, and how weary the toil made him; and so, thinking a little sadly, he fell asleep.

"But fancy the joy that came with morning, when, on going to his treasury of coloured stones, he found, not twenty, but forty! The Fairy, true to her word, had again doubled them!

"Tony now began to build his house, and, as he had anticipated, it gave his parents as much pleasure to watch its progress as it gave him to build it. Meanwhile, he diligently searched among the pebbles of the brook for fresh material, going farther and farther afield, until he had completed another set of forty. He had now no longer any doubt about the Fairy fulfilling her part of the bargain. Nor was his confidence misplaced. The next day saw his eighty bricks increased to a hundred and sixty!

"You may imagine what courage it gave him to find that his efforts were seconded by the beneficent Fairy; and it was not in respect to the accumulation of the stones alone that she helped him, but in other things; so that whatever he attempted to do, if he only went earnestly to work, the Fairy seemed to double the result of his labour.

"So Tony worked away at his house until all the walls were beautifully finished, and it only needed a roof to make it a perfect little mansion. This, at first, seemed more than he could accomplish. However, by dint of often trying, and with the aid of the kind Fairy, he at length succeeded in roofing his house to his heart's content.

"And then what a joy it was to Tony! For people came to see his house, and among them the rich man's children, who wanted to buy it of him; but he would not part with it, though he offered to make them one like it, and did. Still, though they took great pride in the possession of it, it did not afford them half the pleasure that

the designing and building of it had given Tony ; which shows that there are pleasures that no amount of wealth can buy.

"As Tony grew up, he built larger and larger houses, and at length he made them large enough for people to live in, and became famous for building them beautiful and strong."

"That is a pretty story," said Fritz.

"And true too," added Fifine, "although it seems only a make-up."

CHAPTER VIII.

WORK.

The same evening Leitner took his first lesson in English, by arrangement in his own room. When it was over, he and the Professor descended together, and were about to enter the latter's door when Leitner suddenly remembered that he had forgotten something, and remounted to his own room.

Claus found Fifine and Annette alone, his wife and Zerafine having gone out shopping. The young ladies were engaged on some fancy work, and were chattering in English over it.

"You won't mind our continuing our English chatter, will you?" said Fifine. "It is killing two birds with one stone, doing lessons over work."

Claus, although thoroughly well acquainted with the language grammatically, and with its literature, had never learned to speak English with ease, or to understand it when spoken. He replied to Undine's question, that he did not mind ; adding, playfully : "If I were inclined to be *malicieu*, I might say it was pleasant to hear women talk in a foreign tongue, for then we enjoy the sweet music of their voices, like the songs of birds, without knowing the infinite nothings of which it is made up."

"If you did say it, it would serve you right never to be able to understand any of those 'infinite nothings' again," replied the saucy Annette. "Oh, how vain you men are ! As though it was women only who could talk these 'infinite nothings.' Here is Herr Leitner" (he entered as she was speaking) "also I'll be bound with his mouth full—"

"Of 'infinite nothings.' Is that what you were going to say?" asked the Professor.

"Never mind what I was going to say," replied Annette.

"It was full of greetings to you all," said Leitner, "which I hope are not quite 'infinite nothings.'"

"They are something or nothing according to the greeter," said Fifine. "In your case I'm sure Annette will not consider them nothings."

"Oh, I don't know that," said Annette, colouring prettily ; "Herr Leitner can say as pretty a nothing as most men, I daresay ; al-

though," she added, with a redeeming glance at the object of her satire, "although—"

"Although," said the Professor, hastening to complete the sentence, "his nothings outvalue some people's somethings. Is that not what you would say, Annette?"

"You will reserve what you were going to say till another time, won't you, dear?" said Fifine, caressing her friend, who seemed hardly to know whether to laugh or cry.

"I have got something here," said Leitner, undoing a parcel which he held in his hand, "that I think you will admire; at least I hope you will admire them; I think I never saw anything more beautiful. Look!"

He produced, from amid a multitude of paper wrappings two exquisitely beautiful fans. They were hand-painted. One had for subject a group of quaintly-dressed children in a garden; the other depicted a rich landscape. The Professor and the young ladies greatly admired them; Fifine, especially, seemed much struck with the charming grace with which the children were painted. Leitner gave her the fan bearing the little group, and presented Annette with the other, saying that he had bought them at a bargain.

Just then the Professorin and Zerafine returned, and immediately after them the Doctor came in. The Professor's eyes brightened at the sight of him: there was promise of a game of whist or chess, of both of which he was exceedingly fond; or, lacking them, of an hour or two's interesting conversation.

"I hear you have got a new pupil, Herr Professor," said Annette, to whom—as to every one else in the house—the fact of the Professor having secured a new pupil was no secret. "Do tell me who he is?"

"You think it is a *he* then?" replied Claus. "But I suppose if it had been a *she* you would not have been so curious."

"I should have been more curious to know what Kaiserstadt lady wanted to learn English," said Annette. "Do tell me his name, or what he is like?"

"Ah, that is a secret," replied the Professor; "but he will be a famous pupil, I warrant you."

"He must be worth knowing then," replied Annette.

"Yes, and you shall know him some day, if you be a good girl," replied Claus.

"Oh, I'm not going to be good for the sake of knowing a young man; one can know those any day—of a sort."

"A saucy girl, Doctor," said the Professor: "what do you think will become of her?"

"That is easily read; she will become the torment of some poor fellow, if she is not already."

"Or else she will allow some one to become her tormentor," put in Zerafine.

"What dost thou know about such things, Zerafine?" asked the Professor. "Hast thou tormented, or been tormented, then?"

"No," said Zerafine, "seeing is enough for me. Why should I put my neck into the collar in which I have seen others grin?"

"Why, surely?" replied the Professor, "especially before thou art asked."

"That was a very ungallant retort," said Bear.

"I know it," replied the Professor, "and I apologise. Zerafine, accept my humble apology."

"Nay, none is required," replied Zerafine, with a laugh; "for I was asked once."

"And what did you say?" asked the Doctor.

"Oh, it was the sweep; and I told him his colour was not to my liking," said the little woman, laughing.

Somewhat later in the evening, while Annette was downstairs (having been sent for by the Wirthin) and the Doctor and Claus were engaged over a game of chess, Fifine took the opportunity to draw Adolf aside, in order to ask him more about the fans, an idea having struck her, which she wanted to carry out, if possible, with his help. She had for some time past been turning in her mind how she could do something to help the general household exchequer, if it were only to the extent of partially paying for her keep. Many different ways of doing so had presented themselves to her mind, only, however, on second thoughts to be relinquished as impracticable. She had even begun to look upon the question as almost hopeless, when the sight of Leitner's fans recalled to mind the fact that at school she had been particularly successful in illuminating and painting in water colours. They were indeed the only studies in which she had excelled at the Misses Popplewell's seminary; thanks as much to the care and assiduity of a clever and conscientious master as to her own natural ability. Several of her drawings, executed for a local bazaar, had been greatly admired. She thought, therefore, she might paint some fans like those Leitner had given her and Annette, if she could only get a market for them. What she wanted the young man to do, was to inquire at the shop where he had bought the fans, if there was much demand for them; in short, to find out for her how to go to work. Adolf was delighted with the opportunity of serving her, and promised to attend to the matter the next morning, saying that he hardly doubted of success, as the art-dealer, of whom he had bought the fans, was a friend of his and of his father, and would do everything in his power to help him.

"You have filled me with hope," said Fifine, "and you have my thanks beforehand for what you are going to do. Meanwhile, may I ask you to keep the matter secret?"

Adolf promised, and Annette just then returning, there was no more said about the affair that night, the remainder of the evening being spent in merriment. Leitner sang; Annette sang; the Wirth even—who made his appearance later—was persuaded to contribute his song.

The following afternoon Undine was upstairs with Fritz, when

Leitner knocked at the Grossbein door, and asked to see her. He brought a small parcel with him.

"I knew you were here, Miss Fifine" (Leitner always Miss'd her), "as I saw you come up; and so I thought I would come and tell you the result of my inquiries at once. They are altogether such as I could have wished; and here are materials for you to begin with."

This was more than Fifine could have expected, and for a moment she was so overcome with surprise and pleasure that she could not speak.

"Pray, wait half a minute, Herr Leitner," she said at length; "I am just finishing with Fritz, and then I will ask you to come and explain the matter to me and the Frau Professorin."

The simple explanation (which gave great satisfaction to Bear) was that Leitner's friend, the art-dealer, told him he could sell almost any number of fans, as well painted as those he had sold him, and bade him encourage his lady friend to try what she could do, offering to supply the material, fans, colours, brushes, &c., so that Fifine could go to work at once.

It was agreed amongst them that they should keep the matter to themselves until Fifine's success had been assured, and then (if success should be achieved) to break the news to Claus as a pleasant surprise. These points being settled, Fifine established her studio in her own little room, where her progress was intently watched by Bear and Zerafine. Leitner, also, was allowed to peep in now and again, but no one else. It need hardly be said that Fifine first of all sketched out her designs on paper, and then practised with her colours on silk, before she attempted to work on the fans themselves. After a few days' diligent work in this way, however, she felt confidence enough to attempt one of the fans. She succeeded beyond expectation, and at once proceeded to the second. In less than a week the two were finished, and delivered by Adolf to the art-dealer, who, while suggesting one or two criticisms, praised them immensely, and paid for them handsomely; at least Fifine thought the pay handsome, and was so elated at the prospect of being able to earn twelve or fifteen florins a week, that the future presented itself to her eyes almost as an elysium.

Who, that has never known what it is to have to work for a livelihood, can imagine the pleasure it affords to be able to earn something. It must be akin to the pleasure of being able to create.

CHAPTER IX.

RAISING THE WIND.

There is often something exceedingly strange, not to say grotesque, in the ways of Providence. How many persons' lives, taken scene after scene and act after act, would read almost like fairy tales. They are fairy tales, with human beings instead of fairies. Of course

there are plenty of dull, prosy lives, because the owners of them are dull and prosy: there must be humdrum lives even in fairyland. But try, for amusement sake, to make a list of the persons either you, or some of your friends have known, who have enjoyed sudden and unexpected changes of fortune, experienced strange ups and downs, and gone through adventures as marvellous as anything in fiction—and see if it does not extend to a goodly length. Fiction, as a rule, fails in not being wonderful enough; reality outdoes it. Who could have imagined, for instance, such varied fortunes as Fifine had passed through in the course of two short years. Only so long ago, she was a simple school-girl, going through her days and her lessons in a half-dreamy sort of way; reading tales—chiefly German ones—and imagining life (out of school) to be like them; feeling little interest in any of her studies except music and drawing, and taking what interest she did in them because the masters who taught her were men who could infuse some life into what they taught, and not quasi-automatons like her school-mistresses; then came the Prince, in Tyrolese hat and cloak—not the real one, but simply a stage-struck imitation—who told her of a life larger and more real (terribly more so, as it proved) than that of the schoolroom, and carried her off, but not altogether in a princely fashion; then, after the gilt had worn off his gingerbread princeliness, came misery upon misery, degradation, the opening out of all that was most fiendish in human life; then an effort to be free, flight in the guise of a youth, failure to find the person sought, despair! “It was not I altogether who did it; I seemed to be made to do it,” Fifine used to say. And so it is: our noblest efforts and strivings are only half our own. A something stronger than we supplies the inspiriting force, and lifts us at it were out of our ordinary selves. Lastly, after all these ups and downs, she was brought like a lost lamb into the poor Professor’s house; and there, after all these vicissitudes, she was using her pencil and brush as in the old school-days, but she was wielding them for a livelihood.

In the art she had thus taken up, Fifine endeavoured honestly to excel; she made every effort to profit by the art-dealers’ criticisms; and besides got Leitner to purchase her one or two books of instruction from which she thought she might obtain hints. She consequently made steady progress, and when, in the course of a few weeks, the art-dealer found himself able to raise her pay for them, she heartily rejoiced, but first and chiefly because she saw it in her power to banish the grim spectre of needy households from the Claus Bromm door.

All the money she received was handed over to Bear; who, good soul that she was, felt some qualms of conscience in accepting it; wanted to take but half, and when Fifine insisted, took the whole, but tied half of it in a handkerchief, and hid it religiously away.

For a little while it was necessary to practise a little deception on the Professor; who, when he saw something like plenty on the table where he had expected to see Lenten fare, was answered with a sigh,

and a hope that the butcher and the baker would not get disagreeable and stop supplies. Finally, however, it was decided to put an end to the deceit, although a last bit of innocent deception was practised to heighten the effect of the discovery.

"I do not know what I shall do for your supper, Ratze," said Bear, as he put on his hat preparatory to going out for his evening walk. "The three gulden you gave me has all gone."

"Mein Gott!" said the Professor, with much astonishment; "how soon they do go!"

"There is not much in a gulden," replied Bear.

"True, Bear, there is not—especially a poor man's. Well, it can't be helped. Here are ten silver groschen; it is all I have left; it will get something for Undine and yourself; as for me, I am not hungry."

"But you will be," replied Bear.

"It is hardly likely," said the Professor. "I shall walk for half-an-hour; then I shall return, and work on my ghost article; and for that, you know," he added with a quiet smile, "one is best fasting; it aids the perception."

"Get away with you," said Bear: "'aids the perception,' indeed! All the aid such fasting will afford will be to make me see a ghost of a man wandering about the place, instead of a substantial creature. Go; and take your silver groschen with you! But don't be away more than an hour, as we intend to have supper early—such as there may be of it."

The Professor sallied forth; and with that perversity for which the stomachs of the poor and needy are remarkable, his *dura Germorum ilia* soon began to give premonitory symptoms of an appetite that a *bon vivant* would have given a knight's ransom for. He, however, set his mind against it, determined to repress the alluring vision of cold sausage until those at home should have grown tired of waiting for him, and have satisfied their wants.

It was a cold, blustering night, with occasional gusts of rain, so that only those were out who were compelled by business or necessity to pace the streets; nevertheless Claus overran the hour of his permitted absence, struggling against his appetite and the wind, and striving to concentrate his mind on the unfortunate ghost article. Like the preacher, however, he found it vanity, although so well grounded was he in philosophy or good nature, that there was no vexation behind it. Once, it is true, he discovered himself dwelling upon his misery, and began to chafe in consequence, but he checked himself at once: "Talk about thy misery!" he said to himself; "it will be time enough to fret thyself about that when thou can'st find no one more miserable. Down, thou insensate ruffian of the belly! thou art not going to ruffle me!"

So saying he thrust himself against the wind, which, as he was about to turn a corner, gave him a lusty buffet, and forced him back a foot; and coming into a narrower and more sheltered street, he saw before him—as though to give point to his soliloquy—a poor

kerb-stone musician, on whom misery seemed to have set his very own sign and seal. So dismal and comfortless was the night, that those who were out walked quickly about their business, if they had any, and showed little disposition to linger, especially to listen to such music as the Orpheus was discoursing. Either his fingers were out of joint, or his wind broken, or something else was the matter; the notes would not come as they should do; they were too faint, or too squeaky, too sharp or too flat: they hustled and jostled each other, making a *pot-pourri* of as discordant sounds as ever jarred the ear and sent the hearer home with incipient ill-humour.

"How much for your pipe, narrow jaws?" asked a capless lad, with a grin, as he passed.

"Your crop of tow," answered he of the pipe.

Truly his jaws were narrow. His whole face was a page on which "starvation" was writ large. It was like a skeleton skull, with damp parchment stretched over it. His hands were ghastly thin and long. The man altogether looked like Death piping for victims. But no one danced, not even a solitary heller danced piperwards.

"If you are playing for a supper you will have to play better than that," said the Professor, stopping before him. "Here is a nest-egg for you," giving him his ten silver groschen; "perhaps that will change your luck. I have been watching you for ten minutes, and have not seen you take a kreutzer."

"I have not taken a solitary coin to-day. It is one of my bad days."

"You seem to have had a run of bad days, friend," said the Professor.

"I have, indeed; I have a cold on my chest, can scarcely blow, and my fingers are stiff."

Claus would gladly have emptied his pocket, in order to bestow a larger dole on the poor stroller; but he had, figuratively speaking, no pocket to empty: he had bestowed his last coin. At such times of empty-handedness the Professor felt the hardness of fortune, or rather it was then, if at any time, that he desired riches. A happy thought struck him, however.

"Give me your pipe," he said, "and do you stand before me with your hat, while I try to raise the wind."

The windless Orpheus handed him the flute, willing to depute to any one the task of wooing back to his side, in the *enfer* of his destitution, the coy dame, Fortune, to whom he had all day piped in vain.

Without preparation or prelude, Claus at once struck up a lively tune, and played with so much spirit and power that the passers-by began to turn round, and then to linger, until at last quite a respectable crowd listened and enjoyed. From one tune he passed to another, and from that to another, fantasiasing on airs grave and gay with wonderful dexterity and vigour, if not with consummate art and taste, while the stroller did churchwarden's duty by handing round his hat for the collection. In the course of a quarter-of-an-hour or

twenty minutes, he had gathered quite a handsome amount, enough at least for a good supper and lodging, and a breakfast to boot.

Being now pretty well out of breath, and thinking he had raised enough for present wants, Claus resolved to dissolve partnership, and accordingly handed back the flute to the itinerant player, bidding him go eat and rest.

"But you will take half the proceeds, will you not?" said the man.

"No; take them and enjoy them. Besides, the instrument is yours, and therefore in any case I should only be entitled to a small percentage. To the instrument always the lion's share. That is good political economy."

"The flute would have been of very little use to me to-night without your skill and your goodness," said the piper. "All the money they have earned would not compensate you; but Heaven will."

"That is good then," replied the Professor. "Good night to you, and better luck!"

"Good night, kind sir," replied the other in a broken voice. "Pray add another favour to those already bestowed by permitting me to press your hand."

The Professor held out his hand, which the flautist pressed effusively, at the same time dropping a few tears upon it.

"It is comical," soliloquised Claus as he walked away; "I could not have done that to satisfy my own wants;" which excogitation brought to mind the destitute state of the home larder, and the reflection that there was nothing to prevent his going home for his own flute, and returning with sufficient small change to supply a supper of the gods for himself and his household. "The expenditure of a little wind would do it," he said to himself; but instantly added, "No, I would rather go to bed with the said wind on my stomach."

So minded, he trudged to the Prediger-strasse, and mounted to his home.

"Well, little wife," he cried, as he entered; "it is to be Lent and Ramadan in Prediger Hof to-night, then?"

"Are you hungry?" she asked.

"Oh, nothing to speak of!" he replied.

"I have got a bit of something for Undine; she thought she would like something nice; so I stretched a point—"

"That was right," said Claus, stroking his wife's hand; "we shall be able to make it up."

"I think there will be enough for you to have a mouthful with her," said Bear. "Just go to your ghost article for a few minutes, and I will call you when it is ready."

"No, never mind me; I shall be all right; I daresay it is a false hunger I feel. As a rule, people eat too much."

"That may be; but not you, mein Ratze!"

"There, go and get the child her supper, and do not disturb me; I want to finish my article, and I have been out longer than I intended."

"I shall," replied Bear; "even if you do not join her at supper, you must bear her company."

Although this conversation was borne with a disconsolate expression of face, the Professor observed a twinkle in his wife's eye, which caused him to make the reflection that woman's nature stands out to the best advantage against a pale background of adversity. He was just formulating a compliment to Bear, in the form of a conundrum, somewhat thus: "Why is a good woman like a glow-worm?" the answer to which was: "Because she shines the brightest amid the greatest darkness;" when Bear put her head into the room, and bade him, "Come."

"Directly," he replied.

"Nay, at once," said Fifine, coming to his side, and taking him by the arm.

"You have caused me to make a blot on my page," said the Professor, looking at the large spot of ink which Fifine had made him drop from the pen.

"Never mind, father mine; I will re-write the page for you; I can't sup without you to-night."

Claus allowed himself to be led to the table, the sight whereof caused him to make large eyes. Anything so sumptuous in the way of eatables he had not seen for a long time, at least on his own board. His first thought was: "Ah, thou Bear, what extravagance is this for poor folk to support?" his second was: "If it is to please Fifine, it is all right;" and with that he cast all doubt aside, and beamed with a smile as broad as that of the table.

"When you came and disturbed me," he said, looking with a puzzled expression from Bear to Undine, and from Undine to Zerafine, whose faces were all radiant, as with a joke yet to be told, "I was running over the form of a conundrum that I was going to propose to you. But your conundrum is harder than mine."

"What conundrum?" asked Bear.

"That which you have put before me. But perhaps I shall find the solution in the soup."

"Perhaps," said Bear; "but tell us your riddle, and then we will explain ours."

"Here it is, then: Why is a woman like a glow-worm?"

"Because she likes to be out at night," replied Zerafine.

"I did not know that it was one of the qualities of a good woman to like to be out at night," said Claus.

"You did not say a 'good woman,'" replied Zerafine.

"Oh, then I omitted a very important epithet; please guess again with the 'good' added."

"Because she attracts by shining," said Bear.

Claus shook his head.

"It is not the good women only that shine," put in Zerafine.

"What say you, Fifine?" asked the Professor.

"I should think the real answer is somewhere betwixt Bear's and Zerafine's. Is it because her light is the brightest in the darkest hour?"

"Hit!" cried Claus. "Now explain your conundrum—whence the supper came; for I can tell from your faces that there is some good explanation to come."

"It is Undine's treat," said Bear. "You must know that she was much troubled because she thought she was putting us to cost, and could do nothing to help the larder, wherefore she began casting about to find out what she could do to earn something, and finally, on seeing the painted fans that Herr Leitner brought her and Annette, it struck her that she might do work of that kind, as she had been successful in water-colour drawing at school, and, in short, she succeeded to a marvel."

"Du! du! du!" (Thou, thou, thou), exclaimed the Professor, taking Fifine's hand in his (she being seated on his right) and patting it in his quiet expressive way; then feeling blindly with his left for his wife's touch, he sat for a moment looking fixedly before him over Zerafine's head, until a moisture that had come there dried from his eyes. When his blindness had passed away, he saw that the dew of tender hearts had been on other lids.

Zerafine made an excuse of fetching some of Fifine's fans to show him, to get away from the table. She returned with two newly finished, which Claus examined with a calm, wondering eye, and then, turning to Fifine, and repeating his "Du! du! du!" stroked her golden curls.

"The King has something to do with this," he said, after a pause.

"What, the King of Prussia!" exclaimed Zerafine. "He plays no such jokes."

"Then some other," said the Professor. "But come, we are forgetting to eat, and the jokes are getting cold."

"You mean the fowl," said Zerafine.

"Very well then; the fowl," replied Claus; whereat Bear and Fifine laughed; while Zerafine wondered what tickled them.

"It seems to me," said the Professor, after they had told him all about the fan industry; "it seems to me that Leitner ought to have been with us to-night."

"And so he would have been," replied Bear, "if he had not had a previous engagement."

"A great deal of the credit is due to him," said Fifine. "We owe everything to his good nature."

"Except thy gift," said the Professor.

"It shows how a gift, if gift you call it, may lie dormant, until one is put to it," said Fifine.

"Truly," replied the Professor; "a fact, by the way, that has been singularly brought home to me to-night."

"How?" cried Zerafine and Bear.

"I will tell you; but first pass the bottle; good eating calls for good drinking, and that Burgundy is delicious. What a deal that Nussbaum will have to answer for, for keeping so much sunshine corked up in his cellar when it might be going about the world doing good."

"It strikes me," said Zerafine, "that it goes about too much, and is responsible for a deal of harm."

"So think I, too," said Fifine.

"Ah, that is when it gets into bad bottles—heads, I mean. That is one of its good qualities; it searches them out; nothing like it for that. I would use it as a test for the tempers of men, and treat them accordingly. Those who got brutal under wine—well, they should be looked to, and kept on tea and water-soup."

"But your story," said Fifine.

"Oh, yes, my story! Well, here it is. As I was going along the Hirschgraben, thinking how ill a night it was for poor folk to be out in, I was suddenly arrested in my cogitations by a series of most discordant sounds. Looking whence they came, I saw a skeleton of a man wrapped up in a black coat, and leaning against the wind, blowing with lustreless lips upon a disconsolate flute. It was pitiful to think that, with so much wind about, he could not get enough into his pipe to make it speak properly. He had fasted all day, and looked as if he was fast by the great Friday and banyan day. Although he had piped all the evening, not a stiver had danced to his pocket. With a large hunger, and only ten silver groschen, I felt like a petted child of fortune in comparison, and gave out of my abundance; in the first place groschen for his pocket; and in the second, wind for his flute."

"Whatever do you mean?" said Bear. "Why can't you tell your tale so that one can understand it?"

"Well, then, I played for him, while he held the hat."

"You played a flute in the public street!" cried Bear.

"Yes, truly," replied Claus; "expended my breath to raise the wind for him. Was there any sin in that? I had enough left to cool my soup with."

"I never thought you would descend to that."

"To what, my dear old Bear?"

"To play in the street."

"Did I not play in the street, love, when I serenaded you? although, truly, I did not play for money; at least I got none."

"I might have expected something of the kind, bandying words with you," said Bear, with a laugh. "But did you get any money?"

"Oh, yes; the listeners marked time very well."

"How much?"

"I don't know; I was too busy minding my stops to mark the punctuation."

"We shall know what to do when we want to 'raise the wind,' as you call it," said Zerafine; "you shall go out with your flute."

"And thou shalt be the monkey, Zerafine, eh?" laughed the Professor.

(To be continued.)

"A MAN finds room in the few square inches of his face for all the traits of his ancestors."—*Emerson.*

Facts and Gossip.

It seems as though, after all, some men even are unwise enough to try waist-squeezing of mischievous severity. In the *Yorkshire Gazette* of the 5th inst., there is an account of an inquest on a young man—one F. W. Calvert, aged twenty-five, only son of his mother—who died owing to the sudden failure of the heart's action. It transpired that the deceased had been in the habit of wearing stays, and had them on the day of his death. The post-mortem examination showed that the heart was diseased and enlarged; its cavities being all empty.

DR. STRONG, superintendent of the Northern Ohio Insane Asylum, declares that the alcoholic habit is the training school whence the great criminal army draws its fresh recruits. The habitual use of alcohol destroys the superior portions of the brain, in which are lodged the higher order of sensations and powers, paralyzes the will which kept the lower faculties in check, and stimulates the latter abnormally. Alcoholic intoxication is temporary insanity.

THE *New York Herald of Health* says: Few persons will believe the waist is so compressible as it really is. One only 19 inches in circumference is very much undersized, and could belong only to a person dwarfed in her growth. A woman's waist should not be less than 28 inches round. It is a question how much one might reduce the size of this part of the body. We will simply say we know of a young lady who, by lacing, brought down her girth from 28½ inches to 22 inches by stays in a year's time. While she was proud of what she had done, no one else was proud of her. Her health was not so good, and the doctor's bills began to increase as the waist became smaller.

HEREDITARY DESCENT OF BEAUTY.—Mr. Darwin believes that the general beauty of the English upper class, and especially of the titled aristocracy, is probably due to their constant selection of the most beautiful women of all classes (peeresses, actresses, or wealthy bourgeoisie) as wives through an immense number of generations. The regular features and fine complexions of the mothers are naturally handed down by heredity to their descendants. Similarly, it would seem, that we must account for the high average of personal beauty amongst the ancient Greeks and the modern Italians by the high average of general taste, the strong love for the beautiful diffused amongst all classes in both these races. The prettier women and the handsomer men would thus stand a better chance of marrying, other things equal, and of handing down their own refined type of face and figure to their children. If this be so—and evolutionists at least can hardly doubt it—then we should expect everywhere to find the general level of personal beauty highest where there was the widest diffusion of æsthetic taste. Now, our own squalid poor are noticeable, as a rule, for their absolute and repulsive ugliness, even

when compared with those of other European countries. Gaunt, hard-faced women ; low-browed, bull-dog looking men ; sickly, shapeless children, people the back slums of our manufacturing towns. Their painful ugliness cannot *all* be due to their physical circumstances alone, for the lazzaroni who hang about the streets of Naples must lead lives of about equal hardship and discomfort ; yet many of them, both men and women, are beautiful enough to sit as models for a Leonardo. On the other hand, every traveller speaks in high admiration of the beauty and gracefulness displayed by young and old amongst the æsthetic Polynesians ; while in many like cases I notice that Europeans who have once become accustomed to the local type, find decidedly pretty faces extremely common in several savage races whose primitive works of art show them in other ways to possess considerable æsthetic taste. In India, where artistic feeling is universal, almost every man or woman is handsome. On the whole, it seems fairly proved that the average personal beauty everywhere roughly corresponds to the average general love for beauty in the abstract.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

J. W. W.—This photograph indicates a man of remarkable abilities. He is very strong in his feelings and emotions, very energetic, full of life, and all alive to everything that is going on about him. His intellect is unusually full and strong. He could excel in almost any direction of study, and if he had had a degree more system, he would have been sure to have made his mark in some exceptional sphere, either as a scientist or writer. He is a great observer, possessed of a fine retentive memory, and capable of turning his mind to many things, either in connection with commerce, manufacturing, or engineering. He has unusual literary ability, and could have excelled as a writer, especially in the humorous descriptive line. He is a good judge of men, very agreeable in his manners, ingenuous, imaginative, fond of scenery and travel, and with not a little of the artistic gift. His fault is that he is too versatile, and that in consequence of the variety of his gifts, he is apt not to concentrate them enough in one direction to make them tell to the best advantage.

W. W. (Brighton).—This photograph indicates a character at once strong and weak. There is evidence of decidedly strong moral feelings, especially of Benevolence and Veneration. Conscientiousness is perhaps a little less influential ; then there is a want of will and determination, and in consequence a lack of decisiveness of cha-

racter and general circumspection. A little more energy and force would also be an advantage. Intellectually, the reflective powers are the best. He is characterized for criticism, judgment, and originality. Is fond of philosophy and theology. His general memory is fair; memory of details and particulars rather poor; of ideas, thoughts, and principles good. He has fair Language, and with culture would make a good speaker. Very youthful, agreeable, entertaining, and rather humorous in his disposition. He needs to cultivate a little more pride, steadiness of purpose, perseverance, continuity of thought, and perhaps check the influences of Approbativeness, and the disposition to please and amuse at any cost.

E. D. J.—There are several good works on mesmerism, among them the "Library of Mesmerism;" "Deleuse on Mesmerism," &c., from which the leading principles of mesmerism may be learned. There is also a recent one entitled "Animal Magnetism," which contains some very important investigations. If possible it would be well to consult some practical mesmerist.

De S. (Paris).—Very susceptible, impulsive, imaginative, tender, sympathetic, with most of the moral feelings strongly represented. Is generally cautious and circumspect, just, reverential, and of rather a spiritual, if not superstitious turn of mind. Strong in his feelings of resentment, rather vindictive; affectionate to the young, and susceptible of strong love emotions. Will be liable to fall in love with every pretty face. Has considerable intellectual powers, and could excel in some scholastic or artistic sphere; but will need a deal of schooling to overcome his disposition to skim the surface of things, and to combat his love of ease. Has good mathematical powers, and would excel in ordering and arranging business.

W. Q. (Natal).—You appear to have a well-balanced organization. There is harmony between your body and your brain, and you are consequently able to carry out the behests of your mind. You are best fitted for an active sphere in life—one that calls out both the mental and the physical powers. You would be out of your element in a quiet, indoor situation. You can do better than attend to mere hard, physical labour, such as digging and delving, for you possess superior intellectual powers. You have good constructive ability and fair organizing powers; have a good memory of things you see, of faces, forms, and proportions; you never lose your way, you recall details and particulars well; are generally orderly in your business arrangements, and are fairly good at making up estimates and calculations. Are rather proud, quite independent, and not inclined to let yourself down in any way. A little more Approbativeness would be an advantage. You may sometimes be a little too square-toed, otherwise you are a pretty good manager of men. Not very greedy for money, spend rather freely, and are naturally frank and outspoken, or at least not hypocritical. Are qualified for overseeing, management, having the control of public works, where will, perseverance, trustworthiness, practical ability, ingenuity, and judgment are required.

THE

Phrenological Magazine.

AUGUST, 1883.

MR. GEO. SMITH, OF COALVILLE.

THE physiological, phrenological, and physiognomical indications of Mr. Smith are that he is a man of action, has an ample amount of vital stock, animal life, nervous force, and muscular energy to enable him to make his mark in whatever direction he decides to work. Such an organization will find something to do, for it could not be idle. He is fully made up, well rounded out, with all his forces in full action.

He has no indication of being crotchety, eccentric, or peculiar; but he has all the signs of being strong, well-balanced, really in earnest, and bent on doing something worth doing. He is positive, takes the first step, leads off, and must be master of the situation, and do things in his own way. He has a pioneering spirit, and would prefer to fell the first tree, slay the first bear, and break the first soil. Difficulties, hard work, and opposition do not discourage him. He has a substantial base to the brain, which gives force and industry. His head is well set on his shoulders, which favours a strong constitution. He has a well-rounded face and broad nostrils, which denote good digestion and breathing power. Of his intellectual powers, the perceptive faculties have the most influence; which are to the reasoning intellect like the helve to the axe. He sees what is needful to be done, and knows how to do it; he takes practical and tangible views of life; has good judgment of men and things; knows how and where to go to work, and wastes no time or ammunition. He aims at a mark when he fires, and always hits; he comes directly to the point in his remarks, and says things with an object. He has good powers of arrangement, and plans well; hence he loses no time or labour. He is more forcible and direct than copious in his style of speaking. He is wide-awake to what is going on around him, and keeps posted up in the news and doings of the day. He has good powers

to illustrate, compare, and apply truth, and is quick to see the bearings of a subject; hence he has a talent for teaching, and is easily understood; add to this teaching talent his large powers of intuition and discernment of character and truth, he would make the most of what he had to say, and be very apt and appropriate in what he had to say, and thus attract attention as a speaker. Having large perceptive faculties, Eventuality, Comparison, Intuition, and a sharp development of Mirthfulness, his object of talking would be to give information, and his style would be practical, definite, illustrative, earnest and pleasing. The head is high, which favours moral power. His moral, manly feelings, have a powerful influence in bringing him out of his low, servile state into a position of great power and influence. He need not necessarily have all the moral and religious faculties large in development, but their influence as a whole gives him an elevated tone of mind and enables him to exert a good and powerful influence over others. His sufferings and hardships as a boy along with other boys may have directed his attention to children in his labours of love; yet benevolence and parental love must be strong developments of brain to enable him to be so successful in his reform among the factory, canal, and gipsy children, and so popular with them. His entire make-up indicates great firmness, decision, perseverance, and tenacity of mind. He looks like a man who is in earnest, and means that every day and act shall result in good to some one. There is also a genial, warm, pleasant expression, which would make people in trouble look to him for comfort and assistance.

"The Children's Advocate" is the beautiful title which Mr. George Smith, of Coalville, near Leicester, has won by a quarter of a century of self-sacrificing labour on their behalf. His personal history can be stated in a few lines. He was born on February 16, 1831, at Clayhills, Tunstall, Staffordshire. His father, William Smith, was a brick and tile maker; of him a brief memoir has been published by Dr. Grosart, under the title of "Hanani"—who "was a faithful man and feared God above many." Of education, in the ordinary sense of the term, he received but little: but truly valuable instruction, chiefly of a non-scholastic kind, he received from his grandmother, whose rare sagacity, decision, and kindness still cause her memory to be cherished, and from an old woman who was a Primitive Methodist. When he was seven years of age, he was sent forth to earn his own bread in a brickfield; he earned a good name as a working man,

and gradually rose to the honourable position of manager of a large concern. He showed his skill by the invention of a kind of ornamental brick, which has come into general use in the construction of superior houses; and he would doubtless have risen to commercial prosperity had he not come to a remarkable decision. As manager he was in receipt of £450 per annum, but his employer believed that he could not continue at once effectively to discharge his duties in this capacity and successfully plead the cause of the canal chil-



dren of Great Britain; and, called to choose between them, Mr. Smith surrendered his income and devoted himself and his savings to the interest of many thousands of unhappy children.

It was in this wise that he came to have such a self-sacrificing concern for children. The hardships of his own childhood had left imperishable records in his memory. "At nine years of age (he writes), my employment consisted in continually carrying about forty pounds of clay upon my head from the clay heap to the table on which the bricks were made. When there was no clay, I had to carry the same weight of bricks. This labour had to be performed,

almost without intermission, for thirteen hours daily. Sometimes my labours were increased by my having to work all night at the kilns. The result of the prolonged and severe labour to which I was subjected, combined with the cruel treatment experienced by me at the hands of the adult labourers, are shown in marks which are borne by me to this day. On one occasion I had to perform a very heavy amount of labour. After my customary day's work I had to carry 1,200 nine-inch bricks from the maker to the floors on which they are placed to harden. The total distance walked by me that night was not less than fourteen miles, seven miles of which I traversed with eleven pounds' weight of clay in my arms, besides lifting the unmade clay and carrying it some distance to the maker. The total quantity of clay thus carried by me was five-and-a-half tons. For all this labour I received sixpence!"

George Smith's was no exceptional case. Round about him were hundreds and thousands of children oppressed by labours as disproportionate, and subjected to treatment as cruel. Unlike most people, he never became reconciled to the facts with which he was familiar from his youth up. Having used his few leisure hours and his scanty earnings in the cultivation of his mind, as soon as he reached manhood he began to talk and to write about the miseries of the boys and girls employed on the brickfields; and he persevered in the self-appointed task, notwithstanding the odium and threats of personal violence to which it exposed him, until the attention of Parliament was directed to them; and, as the result of the agitation originated by Mr. Smith, it passed a remedial measure, which, under the title of the "Brickyard Act, or Factory and Workshops Acts Amendment Bill," received the Royal assent on August 21, 1871. Before that day, there were in English brickfields and brick-works nearly 30,000 children of both sexes, between the ages of three and seventeen, unprotected by the provisions of the Workshops or the Factory Acts; and consequently children of nine years of age were employed for thirteen hours daily in degrading labour, and herded together in a manner that led to the grossest immorality. But the Act which rewarded Mr. Smith's toils embodied his proposals—first, that children should be educated before going to work; secondly, that they should not be allowed to commence working before twelve years of age; and thirdly, that girls under sixteen years of age should not be employed in brick or tile yards. Could he have had his own way, he would have excluded girls and women from the brickyards altogether; but, like most other

reformers, he had to submit to a compromise. In consequence of the greed of many manufacturers, and the insufficiency of Government inspection, this Act has not accomplished all its promoters hoped from it ; but it was amended in 1878 ; and the benefits it has conferred on a feeble and defenceless class are substantial and most gratifying.

No sooner was the "Brickyard Act" fairly in operation than Mr. Smith turned his attention to another class of children equally needing pity and help—the children on board the canal-boats. Inquiries into the condition of the floating population on our canals and rivers showed him that there were 100,000 men, women, and children living in a state of wretchedness, misery, immorality, cruelty, and evil training, carrying much peril with it. He found that ninety-five per cent. could neither read nor write ; ninety per cent. of the adults were drunkards ; and sixty per cent. were living together in an unmarried state. In 1873 he commenced an agitation on their behalf, and received such substantial support that on August 14, 1877, a Bill embodying his suggestions, which had been brought in by the Government, received the Royal assent. It has been well observed that the Government made a grievous mistake in not appointing Mr. Smith the inspector to see the Act carried fully into effect ; but notwithstanding this omission, and in spite of some temporary difficulties which have been experienced in working it, there is abundant evidence that much good has been accomplished by it. The men are more sober than they were, the women are becoming more cleanly and modest, and the parents are putting themselves to some trouble to secure for their children the benefits of the education which has been provided for them. It is clear that a genuine and permanent reformation is being accomplished among a class for whom no one seemed to care.

Two practical expressions have been given of the admiration and esteem which Mr. Smith's labours have won for him from all classes, from the Queen downwards. In 1873, at a meeting presided over by the Earl of Shaftesbury, a Bible, £100, and silver teapot for Mrs. Smith, were presented to him, along with an illuminated address, in which his successful exertions "to emancipate the English child from a slavery almost as degrading as that of Asia or Africa," were acknowledged in grateful terms. In 1879, for the purpose of further assisting him in his benevolent enterprises, the "George Smith Fund" was formed, amounting to £700. Mr. Smith is now devoting himself to another work no less important than the above mentioned, and more difficult. It

is the reclamation of the gipsies of this country. In "Gipsy Life," published by him a little while ago, he gave a true picture of these miserable and degraded wanderers, and showed that their condition is very different from the representations that have been given of it by some writers of our time. This book he has now supplemented by another, entitled, "I've Been a Gipsying; or Rambles among our Gipsies and their Children in their Tents and Vans." Although Mr. Smith long ago renounced all claims to skill in authorcraft, this is really a work of great literary power. Its pictures of the travels, the tricks, the labours, the vices, and the sorrows of our gipsies, in many of whom no Romany blood runs, are instinct with arresting and saddening force. A study of them will surely lead many to help our friend in the efforts in which he is certain to persevere, if life and health be spared, until Parliament has taken effective means to induce these unhappy vagrants to settle down as industrious members of society, or at any rate, to compel them to give their children such an education as will be likely to kindle within them the desire to live a better life. He has deeply pondered the problems involved in their reclamation, and says, with the justifiable confidence of experience:—"With the proper carrying out of the education clauses and sanitary plans I propose, wisely and firmly, the number of gipsies would very soon decrease, and the sanitary inspectors and School Board officers would be the instruments for bringing this desirable result about. Persecution, policemen, and the gaol will cause gipsyism to grow, while education and sanitation will divert it into healthy channels."

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

CHAPTER. VII.

ENUMERATION OF ORGANS.

In proceeding now to the enumeration of those organs which Dr. Gall supposes he has already discovered, the English reporter of this new German Organology does not hesitate to declare that he is well aware of the first impression which the very pretension to such a science must make on the minds of his readers in general, and that he regrets his author should have possessed so little address in his attempt to remove the obvious *à priori* objections to his doctrine.

Dr. Gall once declared in the writer's presence, when he was hunting for a name for one of his organs, that he was better qualified to detect an unobserved phenomenon of nature than to find words to state his discovery ; hence he has frequently changed the names by which he distinguishes his organs ; and doubtless, should the substance of his science be confirmed, and become current, his vocabulary will not long remain as it now stands. This vocabulary too will be more offensive to an Englishman than a German, on account of the different habits of the scientific men of the two countries, in the use of popular terms. The German philosophers are accustomed, in order to express a natural or moral principle, to borrow some familiar term, commonly applied to an ordinary fact or appearance in life or nature which is derived from such principle ; and at the same time, in their scientific use of the term, they make no reference whatever to that ordinary fact or appearance ; employing the name of the thing for the principle in which the thing originates. German students are therefore accustomed to construe such popular terms liberally and scientifically ; but in England, general readers will always be liable to misconstrue such a language ; they will give a gross interpretation to positions which was never intended by the authors of them. On the other hand, were writers to avoid such popular terms, and hunt for a vocabulary in the wilds of metaphysics, they would be, it is true, not misunderstood, but still they would not be understood, for they would not be attended to at all. I should not wish to try the virtue of most authors, by placing them between the horns of this dilemma. Gall has made his choice ; without hesitation he has put his finger upon the human skull, and said : Here is the organ of cupidity, there of murder ; this protuberance points out one who has an excellent verbal memory, that, denotes a person who recollects places well ; at that corner lies the sign of musical sense, here that of colours, &c., &c. Such being his unqualified assertions, or rather, such being the assertions which it is easy to learn by heart and repeat, while the qualifications which the author makes are disregarded, and not repeated, no wonder that sometimes indignation, and sometimes contempt, indispose judicious persons to enquiry ; and while Gall himself neglects to point out the different degrees of proof by which his distinct positions are supported, the laughers and the revilers cannot be blamed for choosing as the themes of their merriment or declamation those assertions which appear the most extravagant and fanciful.

In the mean while, the most unfavourable remark which

forces itself on the minds of even the candid and liberal, is the inadequacy of the organs to explain the various phenomena of mind. Some are found for very insignificant and merely accidental circumstances of life and characters, while essential features have no corresponding instrument. Perhaps, however, this objection may be sufficiently invalidated by observing, that we cannot here apply the rule, "*De non apparentibus et non existentibus eadem est ratio.*" We may well conceive the existence of the organs, though we may not be able to point out where they appear. But I need not here anticipate the objections of the judicious readers; the less so, as at the end I have translated the impartial strictures of Huseland, a physician of distinction in Germany, and advantageously known here.

Gall arranges the organs under three distinct classes.

1. Those by which man is immediately enabled to enter into connection with the external world.

I.—The Organ of Sexual Love.

This organ constitutes the cerebellum. It comprises that part of the *os occipitis* which lies below the *linea semicircularis inferior*, towards the great occipital hole, and in living subjects therefore is to be judged of only by the thickness and breadth of the throat and neck; it appears double on the skull. Though the two organs and eminences of the cerebellum join, yet each produces a swelling apart on the skull, occasioned by the *crista occipitalis interna*, which lies between.

PROOFS AND OBSERVATIONS.

(a.) It has been already observed, that as the sexual passion arises, this part of the brain (the cerebellum) grows in disproportion to the other parts (the cerebrum); and when, by castration, the purposes of nature in the formation of this organ are defeated, we find that this organ ceases to develop and perfect itself. It is observable in all who have suffered this operation when young, that the back part of the skull, as it were, ceases to grow; the neck is narrow, and the voice, whose seat is in the throat, loses its manly vigour.

(b.) This remark is equally made in many species of animals. In the more simply framed animals, in certain insects which generate in the usual way, the whole mass of brain consists of mere knots, which are, as it were, the commencements of the cerebellum; while in those other animals which do not procreate in that way, these knots are wanting. The stallion and the bull have a more perfectly developed cere-

bellum, and consequently have a thicker neck and broader head behind, than the gelding and ox. This is known to the common people who are concerned in the breed of horses, who give the preference to those stallions whose ears stand the widest apart. The male mule, which has no power of procreation, generally speaking, has a very narrow neck, and the ears stand close together. It is further observed, that the horns of the ox are much larger than those of the bull, for the reason before stated, that the process of ossification increases as the brain diminishes; from the same principle are the phenomena attending the growth of the horns in the stag. If at the time of rutting, the horns are cut off, the animal loses its power of procreation in the effort of nature to reproduce this substance. The channel in which its strength should run is turned aside, and it does not recover its generative faculty till the horns are grown again.

Throughout the whole class of quadrupeds, the neck of the male is thicker than that of the female. Gall attributes this to the longer duration of the sexual appetite in the male.

(c.) There are many phenomena, in cases of disease, tending to the same conclusion.

In the nymphomania Gall has found the neck very hot, swollen, and painfully inflamed. He related the case of a woman of rank and character in Vienna, subject to the most violent attacks. She was frequently seized with convulsive affections in the neck; and in a sort of madness would violently knock the back of her head against her back and shoulders till she obtained relief by means of a seminal discharge.

Wounds in the neck and back of the head will produce inflammation of the parts of generation and even impotence.

In nervous fevers, *satyriasis* is not merely a local disease, but a general evil of the whole nervous system; and to be removed only by some general remedy applied to the nerves. This seems to intimate the participation of the brain in generation.

The cases of *hydrops cerebri* are also in favour of the same doctrine. It is found that of all general functions of the brain, that of generation is often the only one which remains undisturbed; and for a very natural cause, that the cerebellum suffers least of all parts of the brain.

Cretins are notorious for their lasciviousness, while they are without the common intellectual powers, and their cerebellum is unusually large. The known effects of sleeping on the back, Gall also attributes to the pressure and warming of the cerebellum.

Among other cases of insanity, Gall related one of a man, from whom the fixed idea could not be removed that he had six wives, &c. The cerebellum was found monstrously large after his death. Once, on entering an hospital, in which he never was before, he heard a mad woman uttering the grossest obscenities; he desired the attendants to go and examine her head, declaring that if they did not find the skull remarkably large behind, he would renounce all his opinions. He was not deceived.

The bust of Raphael, which was made from an impression taken in gypsum, exhibits a sort of bag behind, announcing that tendency of his constitution to which he unhappily fell an early victim.

II.—*The Organ of parental and filial love and the animal storge.*

According to the observation that kindred functions are seated in adjacent organs, this organ is found in that part of the os occipitis which is included between the two *margines lambdoideæ*—and the *protuberantia occipitalis externa*. It appears simple on the skull, because the two organs adjoin.

Gall very early remarked on this part of the skull, not only in women but in the female of many animals, a very striking protuberance or swelling, which is never found in the same degree in male animals: in the female ape too, and in children, this conformation is also remarkable. Having then no correct notions concerning the nature of an organ, Gall conjectured this part of the brain to be the seat of some sort of sensibility which may be more peculiarly the attribute of the female; but afterwards, considering sensibility as a quality common to all organs, he was led to attribute to this conformation a characteristic feature of the female sex, the love of their children, also that strong animal *storge* which is found so frequently in the brute creation.

The following are the results which Gall professes to have drawn from many years continued observation:—

(a.) That in general the skulls of the female and male in the human race as well as in many animals, may be distinguished from each other by the outline formed by the occiput, taking the profile of the face. The female head behind will form a curve, in which the projection is above, while the male head projects below; conformably, says Gall, with our observation, that that sense or impulse of which we are now speaking, prevails in the female, while that which was the subject of the last article, is more strong in the male.

The contrary opinion which is maintained by many, as far as respects mankind, Gall attributes to our not enough considering the effects of early impurity in boys, in weakening their passions; and the more careful education of girls, which leaves women the full possession of those sensibilities which are and ought to be attendant on healthy maturity of years.

(b.) Further, this observation is found to conform with the facts known of the life and habits of the different kinds of animals. The various forms of the *os occipitis* are found particularly striking in those animals, the male of which do not care for their offspring, as the dog, the cock, &c.; while, on the contrary, where the male shares in the solicitude for its young, it also has the organ. In like manner, this organ is wanting in those animals which desert their young; as the cuckoo, which leaves its eggs in the nests of other birds; the crocodile, which buries them in the sand.

(c.) In children this organ is also found, and always in some proportion to the affection they early evince for their parents, nurses, &c. But as they advance in life, the form of the skull changes. In boys, that part of the skull retreats, which is the seat of this organ, while the parts below become more prominent; on the contrary, this same part of the skull swells and increases regularly in girls.

(d.) Further, Gall has been led to assert the influence of this organ, by various observations in the course of his practice. Among other facts, he related one, as an instance of a most unnatural impulse in the mind, which is better explained by supposing a physical necessity, resulting from the organization, than by any moral explanation.

Catharine Ziegler was tried at Vienna for the murder of her bastard child: she confessed the act, and said she could not possibly help it; she was forced to do it; she could not anyhow resist the desire she felt to commit the murder. The frankness of this her confession, connected with favourable circumstances, her good character, &c., induced the tribunal to pass a merciful sentence; and, under pretence of insanity (which she did not herself plead) she was acquitted, and at length let out of prison. But she told the court, that if they let her escape, they would be responsible for the next murder she committed, for that if she ever had a child again she should certainly kill it. And so she did in fact. About ten months after her delivery from prison, she was delivered of a child, which she soon murdered. Brought again to her trial, she repeated her old story, and added, that she became pregnant merely for the sake of having a child to kill. It does not appear

whether she was brought before the same Judges as before, most likely not; she was executed for this second murder.*

At Spandau Gall examined the skull of a woman in confinement on suspicion of having seven times successively murdered her new-born infant, but the fact could never be proved against her. In her he found the organ wanting. While, in a woman in labour who suffered under a delirium, and could not be persuaded that she was not pregnant with six children, he found this organ unusually large. The skull was produced, and it actually had the conformation pointed out. Gall hence considers the want of this organ as the result of some disease in the brain, preventing its development in this part.

Various objections have been made to the supposition of such an organ.

1. That it is too closely connected with the organ of sexual passion, to be distinguished from it; but Gall replies, that these passions do not accompany each other, on the contrary, more frequently are found together, in an inverse ratio. It is one of the most interesting of Gall's observations (if in fact it be correct) that women notorious for their licentious habits are generally bad mothers, and indifferent to their offspring; and in like manner, that affectionate and tender parents are generally known to be at the same time among the chastest of wives. Those animals, Gall adds, are the most lascivious which are most neglectful of their young.

2. That this love of the offspring does not show itself till the offspring exists, but the organ has subsisted long before: Gall answers this objection by a remark of great importance in the general theory; that an organ may long remain in an inactive state, and that its presence shows the *possibility*, not the *reality*, of any passion. Thus, in many animals, the sexual organs are periodically stimulated, as is the uterus of females, which produces their periodical purification. In like manner, this organ may be first stimulated and called into action by pregnancy. That an organ may be stimulated to greater activity is instanced in mules, which may be rendered prolific in a warm climate by very nourishing food. The same answer may be applied to those who would bring forward the life of *actual* abstinence and celibacy led by so many of both sexes, in whom the same organs are to be found.

* From the MSS. notes whence this account is partly taken, I do not find that this skull came under Gall's observation; but one of the printed statements of Gall's theory, lying before me, states, that Gall found the organ of maternal affection as it were cut off. But that book is too incorrect to be relied upon.

3. It has been said that cats, and other animals which manifest this storge, want the posterior lobes of the cerebrum, which is the seat of this organ; but this is a mistake, the lobes are actually in the brain though placed otherwise.

III.—*The Organ of Friendship or Fidelity.*

This organ lies on both sides of the skull, adjoining and just above the preceding organ, towards the ear, immediately over the *sutura lambdoidea*, and above and about the middle of the *margo lambdoideus*, on the *parietalia*; and is the second organ which appears double on the skull, as the similar organs do not immediately adjoin.

The proof in support of this organ, and of the precise boundary of it, is not like that brought forward in respect to the preceding organs. Gall speaks concerning it with unusual hesitation and diffidence. The evidence adduced is certainly not of a kind to justify our affirming its existence, though it may furnish a motive to anatomists, and persons who have a love of scientific observation, to direct their attention to the suggestion of the author.*

There are two distinct observations which have led to the supposition of this organ.

First, this organ is found in a great degree in certain species of dogs, whose fidelity and constancy are characteristic; in the terrier, the spaniel, the lap-dog, &c., but not in the butcher's dog, the greyhound, and the mastiff.

Gall has also observed this organ in a high degree in several persons, in other respects totally different, and agreeing only in this one quality. In the poet Alxinger; in a notorious highwayman at Vienna, distinguished equally as a robber and a friend, and who chose to die rather than betray his confederates, &c.

A BOOK that may be recommended is "Deep Breathing," published by M. L. Holbrook & Co., of New York. It is by Sophia Marquise A. Ciccolina (translated from the German by Edgar S. Werner), and is invaluable to persons suffering from weaknesses and affections of the throat and lungs, especially consumption.

* To avoid the necessity of ever repeating the same remark, the compiler of these sheets wishes it to be understood, that what Gall confesses with respect to the present organ, he himself is disposed to extend to many of the organs hereafter to be enumerated, and most pointedly to those which concern the higher attributes and more delicate distinctions in mind; as wit, metaphysical acuteness, &c.

THOUGHT-READING.

"Nonsense dies hard," says Mr. Labouchere, and he is perfectly right; but no nonsense dies harder than the nonsense of infatuated prejudice. Amongst literary men, those who know Mr. Henry Sidgwick and Mr. Labouchere—the two who wrote to the *Times* on the Thought-reading wager—very few, we suspect, would prefer Mr. Labouchere's judgment on a matter of evidence of this kind to Mr. Sidgwick's. Mr. Sidgwick has as cool and sceptical a temperament as Mr. Labouchere himself, but he has, in addition, a very much larger knowledge of the subject under investigation, and knows how absolutely childish it is to speak of such a power as some persons impute to Mr. Bishop as a miraculous and all but incredible thing. We say this without having formed any definite opinion ourselves on the subject of Mr. Bishop's powers, and indeed with a strong prejudice against a man who mixes up common conjuror's tricks with the professed attempt to illustrate obscure psychological powers of this nature.

But this we will say, that to all who have studied the subject, evidence literally *abounds* of the existence in rare cases of powers of thought-reading much more remarkable than any alleged in the case of Mr. Bishop. As we do not like to make this sort of statement without any kind of verification, we will take a modern instance from the writings of a Bristol medical man, Dr. Davey, who published a paper in the *Journal of Psychological Medicine*, for April, 1881 (Part I of Volume VII. of the *Journal*), which records the case of a patient of his, investigated by him in concert with two other Bristol medical men, Dr. Andrews and Dr. Elliott. Here is Dr. Davey's description of Mrs. Croad's state:—

"In 1870, it is stated, 'she became totally blind;' in the following year deaf, and in 1874 speechless. The paralysis, which was limited to the lower extremities, involved, in 1879, the upper limbs; but at this time the loss of sensation and motion is limited to the left arm, the fingers and thumb of the left hand being but partially affected. The right hand and arm have recovered their once-lost functions. She is now able to articulate, though with difficulty, from, as it appears to me, a tetanic rigidity of the temporal and masseter muscles, by which the mouth is kept, to a large extent, fixed and closed. It was in October last [*i.e.*, October, 1880] that I was asked to see Mrs. Croad. I found her sitting in a semi-recumbent position on a small bedstead, her head and shoulders resting on pillows. The eyelids were fast closed,

and the left arm and hand resting by the side. The knees I found then, as they are still, bent at an acute angle, the heels closely pressed to the under and upper parts of the thighs. . . . Since October, and through the months of November and December, 1880, I have subjected Mrs. Croad to many and various tests with the view of satisfying myself as to the truth or otherwise of the statements given to the world of her blindness, sense of touch, and marvellous sympathies. To my near neighbours—Drs. Andrews and Elliott—I am much indebted. The various tests referred to were witnessed by them in my presence, and with the effect of assuring us that she (Mrs. Croad) was, and is enabled to perceive, through the aid only of a touch, the various objects, both large and small, on any given card or photograph. After an experience extending over some nine or ten weeks, during which the 'tests' were many times repeated, and, now and then, in the presence of several medical and non-medical (ladies and gentlemen) friends, there remained, I believe, not the least doubt of this 'transference of sense' from the eyes of Mrs. Croad to her fingers and the palm of her right hand. It need not to be supposed that I and others were content to believe in Mrs. Croad's blindness, and to take no specific precautions against any possible trick or deception—far from this. On solicitation, she very kindly assented to be blindfolded, after a very decided fashion; and so blindfolded, that neither deception on her part nor prejudice nor false judgment on ours were—either the one or the other—possible. The blindfolding was accomplished thus; a pad of cotton-wool being placed on each orbit; the face was then covered by a large and thickly-folded neckerchief; this was tied securely at the back part of the head, and, even more than this, more cotton wool was pushed up towards the eyes, on either side of the nose. Not content, however, the aid of two fingers of a bystander were called into requisition, and with these a continued pressure was kept up, during the 'testing,' outside and over the neckerchief and wool, and above the closed eyes. At this stage of the proceedings the room was, on two different occasions, very thoroughly darkened. Under such circumstances it was the testing commenced, and continued to the end; the result being, as theretofore, in the highest degree, conclusive and satisfactory. The transference of sense from one organ to another as an acquired and spontaneous condition of being must, on the evidence here adduced, be accepted as a demonstrated and certain fact. I would state here, that on receiving a picture-card or a photo' from a bystander she (Mrs. Croad) places it on and about the chin

or mouth, and perhaps draws it across the forehead, but the minute examination of the card is, apparently, the work of the fingers of the right hand. These several acts are, for the most part, followed by a quiet and intense thought, a well-marked concentration of mind on the picture, or whatever it may be, when, after a short time, she writes on a slate kept near her a description, sometimes a full and detailed one, of the card, its colouring, and the several objects thereon. I have seen some forty or fifty picture-cards and photographs described by Mrs. Croad at different times with various degrees of accuracy during the whole period I have known her. Occasionally her rapid and precise perception, or, if you prefer the word, conception, of the picture, and of the many, yet minute and trifling objects going to form its entirety, is really startling. I have but seldom seen her wholly at fault, though she has met with her failures."

Now, this seems to us a much more marvellous power than that of thought-reading; but this is not all. Mrs. Croad appears to have had the very power which Mr. Bishop attributes to himself, in a very much higher degree:—

"Sitting quietly by, or near to, Mrs. Croad, my attention has been again and again rivetted on the manner in which Miss Croad holds communion with her mother. Miss Croad does very certainly move her fingers over and about the face of her mother, but few, if any letters or words are formed by her. Watching her very narrowly, on several occasions, I felt at length assured that Miss Croad's communications were altogether unlike those made by either visitors or friends. The latter named formed letters, and with these words, and so conversed—if the expression be allowed—with Mrs. Croad; but it is not so with her daughter. Impressed with the fact as above stated, I spoke to Miss Croad of it, when she told me that as the rule it was requisite simply that she put herself in a close or personal contact with her mother to convey to her what was wished, or to give her a knowledge of this or that, as the case may be. Now, so marked a mental sympathy or concordance as this is altogether without or outside the experience of most of us; and it is therefore well worthy the attention of those present who have the courage to investigate, what I may well call, unorthodox medicine. . . . as a further illustration of Mrs. Croad's peculiar and clairvoyant gifts, it should be stated that at my second interview with Mrs. Croad, and in the presence of Dr. Andrews and others, certain of my own personal and private convictions on a particular subject became, as it would seem, in a strange and exceptional manner known to Mrs. Croad.

She asked me if I would allow her to tell me a secret in my own life-history, and would I be offended if she wrote it on her slate. I replied, 'No.' That written on the slate was and is a fact, than which nothing could or can be more truthful and to the point. Dr. Andrews is prepared to verify this; the others present on this occasion were but little known to me."

Here we have one of the most remarkable amongst numbers of instances of thought-reading, known to all students of the more abnormal facts of psychology—an instance encountered by steady-going professional men, in the ordinary course of their profession, and never produced on platforms for the amusement of the crowd at all. Dr. Carpenter, in his remarkable work on "Mental Physiology," has admitted the probability of the existence of some such power as this, on the evidence in his own possession; indeed, Mr. Bishop declares that Dr. Carpenter has verified the real existence of some kind and degree of this power in Mr. Bishop himself, and has stated his belief that Mr. Bishop's powers have been tested under strictly scientific conditions. Now, we do not pretend to have any specific opinion of our own upon Mr. Bishop's case, and have absolutely no right to any such opinion. Nothing is more marvellous than the assumption of a mere man of the world like Mr. Labouchere, that because the phenomena have never come within his knowledge, they are incredible. To him, apparently, opinions like Dr. Carpenter's are not even entitled to a respectful recognition, for he does not refer to them unless it be in the remark that "nonsense dies hard." At all events incredulity dies hard. There are plenty of facts on which eminent medical men have come without having any motive whatever for credulity, and to which they have been compelled to give their attestation; such, for instance, as those we have quoted from Dr. Davey's address to the Bath and Bristol Branch of the Medical Association, far more remarkable, and far more difficult to bring under any of the known laws of nature, than the achievements of Mr. Bishop, even if these achievements be what Colonel Statham and Colonel Trench affirm, and what Mr. Labouchere denies.—*Spectator*.

"I CANNOT persuade myself that any one is a great man who looks like a blockhead. A man's look is the work of years; it is stamped on his countenance by the events of his whole life, nay, more, by the hand of Nature, and it is not to be got rid of easily."—*Wm. Hazlitt*.

ANNALS OF PHRENOLOGY.

ARTICLE I.

Utility of Phrenology. By REV. GEO. BRADBURN.

The question is often asked, "Of what use is Phrenology, admitting it to be true?"—This is asking in other words, "Is there any utility in truth?" It would give us pleasure to state, at large, some of the prominent proofs of the science, for the satisfaction of our readers, but this would lead us beyond the limits allowed us, as it would, also, aside from the object which we have proposed to ourselves, which is, not to establish the truth of Phrenology, and its claims to be ranked among the sciences, but to give a brief answer to the question, "Granting the truth of Phrenology; what is the utility of it?" The qualification "if it be true," it will be necessary for our readers to keep constantly in mind. Some of the remarks which we shall make in the progress of this article will undoubtedly be considered extravagant by those who are wholly unacquainted with the subject, and be thought to ascribe vastly more to phrenology than it can possibly merit. But we beg leave to assure all such beforehand, that so far from ascribing to phrenology more than, if true, it merits, we shall be obliged for want of time, to omit all mention of many advantages which it is actually calculated to impart.

We observe, then, in the first place, that phrenology is useful as a system of moral and metaphysical philosophy. Whatever is fitted to call the attention of man to his own constitution—whether to the structure and functions of his body, or to the apparently more mysterious workings of the immaterial principle within—cannot be void of utility. Hence, we cannot but regard as having been of some use, the multifarious and differing theories of morals and metaphysics, which have, at one time or other, obtained in the world, however imperfect, and pregnant with error they may have been. For they have induced men to observe, and reflect upon the constitution of their own nature; and thus have called into action those higher powers of the mind, by which the human is exalted so high above the brute creation. That, therefore, which renders the writings of Locke, Descartes, Reid or Brown, valuable, would also render those of Gall, Spurzheim, and Combe, valuable, even though the latter were no nearer an approximation to the true philosophy of man, than the former; for we differ essentially from certain reviewers, who affect to discern neither learning, nor

reflection, nor logical acumen in the writings of phrenologists. That is obviously the best, and consequently the most useful philosophy of mind, which most clearly accounts for, and explains the mental phenomena. Now, phrenology claims to account for these, in a way that is at once more simple, consistent, and rational, than is done by any other system. It claims to be, so far as it goes—for it does not pretend to know all that may be known of man—a correct exposition of his animal, intellectual, moral, and religious faculties. It specifies the distinct nature of each of these faculties, describes its peculiar functions, and the modes and conditions of their manifestation. And this, we say, is what has not been done in any of the one-hundred-and-one clashing theories of moral science, which have been put forth at different periods by their respective and learned authors. Craniology, therefore, out of the question, and to say nothing of *bumps*, which by many are supposed to constitute the whole of phrenology, our science is valuable for its admirable classification of the human faculties, and its beautiful explanation of their innumerable phenomena. Yes; independent of the relation between the energy of the mental powers, and the form of the encephalon, which renders our science so directly practical, and without even supposing it to afford a truer analysis of those powers than has been given by the old metaphysicians, it still has all the claims to usefulness that can be urged in favour of any of the more generally received philosophies. But it will be borne in mind that the question which we are endeavouring to answer, supposes phrenology to be true. This granted, it has immeasurably higher claims to utility than the others; and for this plain reason, that the latter must be extremely imperfect, and in many respects erroneous. So that viewed as a system of the philosophy of mind, our science possesses a value far above what can be claimed by any other which has yet been presented to the world. It furnishes a clear and rational explanation of numerous mental phenomena, of which it were vain to seek for any tolerable exposition in the recognized principles of other systems of physiological science. And it decides many important questions which have been for ages themes of perpetual controversy among metaphysicians. Of these, are those concerning the existence in man of a moral sense, and of a principle of disinterested benevolence—the source of compassion or pity—which the metaphysical Hobbes defines to be “the imagination of future calamity to ourselves, proceeding from the observation of another man’s calamity;” but which our science shows to be an affection of a special

faculty, which, disregarding self, seeks only the welfare of others.

But it is not in furnishing a more just exposition of the mental phenomena that the whole superiority of phrenology consists. It has this further, and perhaps, still greater advantage, that it enables us to ascertain, without any tedious process of experiment or inquiry, what are the individual peculiarities, capacities, and tendencies of men. And this is what renders the system so directly available in practice. The great fault with which all other theories of moral science have been charged, is, that they are not susceptible of a direct and easy application to the common practical concerns of life. So that, even supposing any one of them to be true, its usefulness would always be comparatively small. But phrenology, showing as it does that each faculty acts by means of a special cerebral organ, and that its power of acting, other things being equal, bears a direct and constant relation to the size of its organ, which may be judged of by inspecting the cranium, is pre-eminently practical, and susceptible of incalculable use, in well nigh every department of human affairs.

We proceed therefore to enumerate some of the directly practical applications of which the science is capable; and mention, secondly, that it is fitted to be of great use in the business of education. That great improvements have of late years been made in our plans of education cannot be doubted. Neither can it be denied, that the best plans now in operation among us are felt to be defective and inefficient. They fall far short of accomplishing the objects for which they were instituted. And when examined by the light which phrenology has thrown upon man, the reason of their inefficiency is no longer a problem. They are seen not to be adapted to the nature, with which the Creator has endowed him. Nor is this to be wondered at. For, before a system of education can be arranged in harmony with the constitution of human nature, that constitution must be understood. Before children can be educated as they ought to be, and as the Creator intended they should be, their faculties, and the conditions of their activity, must be known. And this knowledge, we say, was not attainable until the establishment of phrenology. True, what of man's nature that could be known by one's "reflecting on the subjects of one's own consciousness," had been ascertained, and in this way many an ingenious theory had been produced. But, as no two persons are alike—as the subjects of their consciousness differ—so the various theories which have grown out of reflections upon consciousness, not

only clash with each other, but give, in many respects, false and inconsistent views of human nature. In some, as in that of Hobbes, man is treated as if he were a being of pure intellect, and destitute, by nature, of all propensities or passions. In others, the innate differences in the capacities of different individuals are denied, and all the varieties of intellectual and moral character are attributed to the influence of external circumstances. We once conversed with a very intelligent preceptor of one of our literary seminaries, who strenuously insisted that children are all alike by nature, and may, with the same efforts and the same educational advantages, make equal progress in any department of knowledge. And in this opinion we were obliged to admit that he was supported by some of the most learned authorities.

To these, and other equally absurd views of humanity—and they are but the natural results of that mode of studying human nature, which has been usually adopted and recommended by metaphysicians—must be attributed we think, much of the ill success that has attended most of the plans of education which have hitherto been in operation. They have not been based on a correct knowledge of our nature. Well nigh every person who has directed his attention to the subject has unfortunately assumed his own to be a fair representation of the capacities and tendencies of men in general.

The consequence has been that scarcely any two have been able to agree, either as to the best mode of teaching, or as to what should be made the most prominent subjects of education. He who is distinguished for his acquaintance with mathematical science, and finds a pleasure in its pursuits, will insist on the indispensable importance of appropriating much time to studying mathematics. He who finds mathematics a dull study, and that of the languages easy, will deem it equally important that all should be made linguists. Thus every one insists on the wonderful importance of that particular branch of learning in which himself has chanced to make the greatest proficiency; each serving to remind one of the corporal described by Sterne, who because he had devoted many years to the soldiers' life, imagined that of all knowledge the science of military tactics was the most important—the one thing needful, without which there could be no success in any calling, no, not even in the clerical profession! And if those who have had the chief management of education have been generally agreed in any one thing, it would seem to be in confining education to intellect, and leaving out of consideration the great fact, that children have feelings, and physical faculties, which need to be educated.

These evils, phrenology proposes to eradicate. It furnishes as we have before stated, a correct exposition of human nature, on which alone all education should be founded. It shows that children differ widely in their innate tendencies and capacities; and by unfolding the means of ascertaining those differences, it points out the kind and degree of education, which each is fitted to receive. The teacher who is thoroughly versed in phrenology, has but to examine his pupil, to be informed at once of what he is capable, and of the measures that should be taken in order to confer on him the best education, and to fit him for the highest degree of usefulness of which his nature is susceptible. He will immediately perceive, as by intuition, what are the stronger and what the weaker faculties of his pupil, and will adapt his instructions accordingly. If, for example, the moral and religious sentiments are comparatively weak, and the animal propensities strong, which too frequently happens to be the case, he will employ those means which are revealed by the science, to increase the strength of the former, and diminish the activity of the latter. And this would be educating the feelings; which the non-phrenologist may indeed have thought of and attempted, but in which, from his want of the requisite information, he has never been able entirely to succeed. And need we be told, that a science which can do this—which makes known the true method of training the feelings, and adapting educational instruction to the peculiar capacities of the young—need we be told, that such a science may render inconceivable service to the interests of education?

But it may be thought by some that these objects have been already attained, and without the aid of phrenology either. Such, however, is far, very far, from being the fact. Even the existence of all the special feelings is not yet known and acknowledged, in most, if in any of our seminaries of learning. How then can it be pretended, that any proper attention is paid to the education of those feelings in these institutions? Not that, in our schools and colleges, there has been any backwardness in endeavouring to reform refractory scholars, and subject them to order and good government. There has been no lack of exertion here. But this is not educating the feelings. It is not even an attempt to do so. Still, as we have before admitted, the importance of educating these has not been wholly overlooked by non-phrenologists. It was perceived, and strongly recommended, by Milton and Locke. But few have listened to the advice of those great men on this subject, and fewer yet have attempted to follow it; and the small number who have made the attempt, have

met with no very encouraging success, in consequence, as we think, of not being acquainted with the requisite means. The means by which they have endeavoured to succeed, such as enlightening the intellect, announcing precepts, and inflicting various kinds of punishment, are demonstrably incompetent to effect the object desiderated. Indeed, there were no means of accomplishing this, in any considerable degree, until the discovery of phrenology. Aided by the lights of this science, the feelings may be educated as certainly as the intellect, and the young prepared for the love and practice of the moral law. And for this, therefore, if for nothing else, it is obviously of immense importance to those who are entrusted with the education of youth.

It is equally important to such in another respect, which has already been adverted to, that of educating the intellect : for it shows how that may be cultivated to the greatest advantage, and what direction should be given it, in order that the possessor may acquire the greatest amount of knowledge of which he is capable. Who is prepared to say, that much precious time is not wasted, and worse than wasted, by the prevailing practice in our colleges, of compelling all students to pursue the same routine of studies, without regard to their natural endowments? Who does not know, that on the present plan, many a year has been thrown away by some, in the fruitless attempt to acquire a variety of languages, who had otherwise been distinguished for their mathematical knowledge? And who does not know also, that many a one has possessed an extraordinary aptitude for learning languages,—like Mezzofanti, who mastered no less than forty-eight—that could not, with years of painful effort, make any progress in the mathematics. And who does not know further, that there have been some, who while they could accomplish little in either of these departments of learning, were yet able to attain distinction as artists, statesmen, and metaphysicians. Whether generally known or not, these are undeniable facts ; and phrenology accounts for them. Yet, in our schools and colleges, they are almost utterly disregarded, and the same course of studies is marked out for every pupil. And this, in the just estimation of many, is a most serious defect in the laws of our literary institutions. The practice can be justified only on the supposition, that all are endowed with capacities equally adapted to any and every department of knowledge ; a supposition, which, if our science be true, displays a profound ignorance of human nature. And we suppose it was chiefly in a mistake of this kind that the custom originated, and has been by the same

error continued to the present time. We say it was in this mistake chiefly, because we are aware that the evil complained of is not to be attributed solely to this cause. Another error has operated to perpetuate, if it did not to produce it. It is this. The usually prescribed courses of study are supposed to be essential to good success; if not in the more common avocations of life, at least in the various learned professions. But what has the study of mathematics to do with giving success to one in the clerical profession, or to one who is occupied with the subject of moral philosophy? Or, what have Greek and Latin to do with the successful prosecution of the science of astronomy, or chemistry? Oh, it will be said, the study of mathematics is essential to the clergyman and moral philosopher, because it tends wonderfully to strengthen and discipline the understanding—to fit it for close logical reasoning and investigation; and that of Greek and Latin, because it makes us better acquainted with our vernacular language, and tends likewise to elevate and expand the mind. Now phrenology demonstrates, that there is no sort of relation between mathematical and moral reasoning, that they depend upon different and distinct faculties, and that, by necessary consequence, the former may be exercised for ever, without in the least disciplining and improving the latter. And as to languages, it shows that a knowledge of them is obtained chiefly through the medium of a single faculty, which may be powerfully active even in a semi-idiot, who is well nigh incapable of combining two ideas, and inferring from them a third one; and facts prove, that persons who are utterly unacquainted with Latin and Greek, may acquire an easy, correct, and even an elegant style of English composition. Besides, it is not now, we believe, so much as even pretended that there is an important idea in any of the ancient classics that may not be found clearly, intelligibly expressed in our own, and in other modern languages. But do not misunderstand us. Our object in these remarks is not to disparage the study of the noble classics of the Greeks and Romans, and still less that of the mathematics. We merely wish to show what phrenology clearly proves, that the study of them is not, and cannot be, productive of all the advantages which are usually supposed to accompany it; and to expose what we conceive to be an egregious mistake of those, who imagine that either is indispensable to great success in each and all of the liberal professions, and would therefore make an acquaintance with it a condition of our students' receiving the usual literary degrees. Both are important, and ought undoubtedly to be

studied. But let them be studied by those whose natural endowments fit them for such studies, and who think of entering a profession in which such knowledge is of manifest utility. Let not these studies be urged upon those who have not the requisite capacities to succeed in them, and may therefore employ their time more profitably on other branches of learning. Here again the usefulness of our science appears. The time and labour which are now wasted, and the frequent severe mortifications that are incurred by compelling youths to pursue those studies in which they have not sufficiently strong natural talents for succeeding would all be saved by the adoption of phrenology. For if this were done, then all would be educated according to their innate peculiarities of character: no pains-taking and precious time would be wasted on any in attempting to make them what nature never intended they should be made. Not that no attempt should be made to cultivate those faculties which may be possessed by some in small endowment. This should indeed be done, and phrenology unfolds the most direct means of expanding and invigorating such faculties. None of the special powers should be suffered to remain in a state of perpetual inactivity, but all should be brought into action and directed to their appropriate objects. Not, however, with the view of producing among them an equalization of energy and power; for this in many cases, at least, would be impossible; but because there is a peculiar, we may say an exquisite pleasure connected with the appropriate exercise of every human faculty.

(To be continued.)

A RETRIEVER'S SAGACITY.

Dr. James Howison, of Dundee, who contributed an article on "The Power of Thought in the Lower Animals," to the September number of the *Phrenological Magazine* (1881), forwards us the following account of the intelligence manifested by a retriever dog:—

A few weeks since, he writes, when I went to the Homœopathic Dispensary to attend to the unfortunates waiting for my services, I found one of them to be a black retriever dog. The condition of one of his hind paws accounted for patches of blood I had seen from the street up some steps to the Dispensary door, where there was a small pool of blood. The custodian of the establishment—who is a very kindly but timid young lady—told me the poor dog had been lying such

a long time at the door, and would not go away, as he was there when the door was first opened in the morning. She did not know how long he had waited for admittance, but at last it was obtained, when he laid down with his head on the floor, holding his injured foot up, and, as she said, looking so pitiful that she was not afraid to wash it and apply a wet rag. I found him to be a fine old specimen of the old-fashioned curly black retriever. He received me with a wagging of tail and an extremely lackadaisical expression; and to assure me I might do what was necessary without fear, he lay on his right side, holding up the left hind foot, with his mouth and it (the foot) as far from each other as possible. Whilst the dressing was going on, he every now and then—especially when a groan had escaped him—gently raised himself up, and licked my hands. Notwithstanding the pain the operation must have given, seeing that the foot was so crushed a portion of it was hanging off, and subsequently sloughed off, he held his leg so still, I required no assistant. He showed so much intelligence and appreciation of the treatment he had received that I felt quite confident he would return, and had the pleasure to find my conviction was not from over-estimation, as he repeated his visits daily, then missed a day, when he came with the dressing off. That was on a Sunday morning. To make sure the dressing would remain in place, I used plaster of Paris. As this was disagreeable to him, he had determined to have it off, but could not succeed, so he returned in the evening, and as he had been found waiting at the Dispensary in the morning and brought to the house, he came there. The way in which he told me what he wanted was quite amusing: he lay on his side and held up the paw as before, every now and again giving a tug at the bandage with his teeth, then laying his head down again, and when the dressing was removed he would on no account allow me to replace it. I kept him all night, in the hope of his having it done in the morning, which he did, but soon after removed, and took his departure, not, as yet, to return. I met with him in the town that day, and from his movements fancied he must be a "nobody's dog." I expected I should often come across him; however I have never seen him since, notwithstanding a sharp look out, and many inquiries. I was told he would be found in the neighbourhood of the docks, and applied to one of the dock watchers—a very respectable old man, who thought it would be a dog that often amused him. He gave me an account of his doings in such a quaint way that it seemed to stamp truth on every word: "Ah," said he, "if it's him he is a 'pawky loon'; he munny a time amuses me wi' his pranks.

Ae day I noticed a young doggie wud insist on playin' wi' 'im, much to his annoyance, so at last, after tryin' what a bite wud dae, he enticed 'im tae the edge o' the dock, and put his nose under the belly o' the cratir' and g'id 'im a tilt our into the watter, then keekit our wi' 'is heed cocket first on ae side, then on the ither, and when he saw he was like to droon, he jumpit in—fur he's as much at hame in the watter as oot o't—and got 'im be the lug ; but when he saw a man comin' to the rescue that happened to be near in a boat, he took it to 'im, and then swam to the steps hissell'."

Upon relating this to a friend, Colonel —, he said: "That dog does more wonderful things than that. He is so fond of a trip to sea, that sometimes when he sees a boat he knows, such as the Newcastle, Hull or London steamers, going off to sea, he swims out to it, and the sailors, who are always glad to have him as a passenger, let down a rope with a loop at the end, through which he puts his forelegs, seizes the rope in his mouth, and gets hauled up, and when he returns he is sure to be first on shore, as he swims to it.

If this remarkable specimen of canine sagacity should be my patient, he may have considered a voyage to sea necessary to recruit him from the effects of his accident, and may favour me with a visit on his return.

HEREDITARY INFLUENCES.

BY NATHAN ALLEN, M.D. (LOWELL, MASS.).

The greatest blessing a child can have in this world is a well organized body. All its parts should be sound and healthy. Such a constitution can come only from parents sound in body, and governed by high moral principles. Few persons are aware of the immense importance of the laws of inheritance. The proverbs that "Like begets like," and "What is born in the bone cannot be whipt out of the flesh," are full of meaning.

If a child is born with a sound and healthy constitution, he will be subject to very little sickness. Such an organization pre-supposes that the mother can nurse the child with a good supply of breast-milk. This is very important. We have known many infants starved, more or less, in the first months of their existence, without the mother's realizing it. The first six months or first year is the most important period in life ; for the constitution and health ever after depend

very much upon the start—the growth and soundness which all the organs obtain during this period.

If a child inherits a sound body, and is properly cared for, the slight exposures and the common complaints of childhood do not readily affect him; and in case he is attacked with sickness, the disease is more easily thrown off; medicine operates to better advantage upon such an organization, and the child requires much less nursing. The same course and exposures to disease follow the child through all the periods of life. Such a person with proper care will seldom be sick, and will never require much medicine or nursing.

Now, how is it with the infant born into the world with a frail and delicate body, possessing but little strength and vitality? What is the cause? The parents probably have frail bodies or poor health; the father may be addicted to drinking habits, or the excessive use of tobacco; the mother may have overworked or been "irregular" in her habits, or disturbed much in her mind and feelings.

Besides, one or both parents may have some chronic or old disease, or certain physical weaknesses, the seeds of which are transmitted to the child. What a hard chance such an infant has! He may get poor breast-milk awhile, but more likely he must nurse the bottle supplied with "Patent Infant Food!" The stomach and bowels soon become disordered. Such an infant is liable the first year to much sickness—such as colic, diarrhoea, and it may be Cholera Infantum. He teeths hard, his nerves become irritable, and his brain is liable to be affected. Many such infants die early. More than one-third of all children die under five years of age.

The primary causes of death in large numbers of them, start with their birth—inheriting a poor, sickly organization. Fathers and mothers think very little of their responsibility in such matters! When they see their children puny and feeble, racked with pain and suffering, prostrated with disease, and dying prematurely, they little think of their own agency in causing it.

The time will come when these hereditary influences will be better understood. If they could be strictly observed by all parents, it would diminish the suffering, the sickness, and mortality of infants and children more than one-third. All persons have much to learn in these matters. It is a duty we owe to our Maker, to ourselves, and to our posterity that we understand and observe the laws of heredity. They constitute a part of the will and government of God in this world as much as the "Ten Commandments."

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER X.

THE DISAPPEARANCE.

THE evening following Undine's feast, or *encena*, as Claus loved to call it, the latter entered the Wirthshaft "Zum Gute Prediger," to pay a visit to his "Circle"—a sort of club, composed of a few congenial spirits, who meet for conversation and convivial enjoyment, usually at a café or other place of public entertainment. Ordinarily, these circles are held in the common room, but have a table set apart for their own use: such was the case with the circle to which Claus belonged, which was composed chiefly of professors of the University, and professional men. Claus Bromm was not in the habit of going much to his, and on the evening in question he went with a view to seeing Bleichroder, whom he wished to make acquainted with the good fortune that had befallen his adopted daughter instead of the ill-luck the Doctor had been pleased to predict. On entering the inn he found nothing but trouble. Wirth Nussbaum had a cloud on his generally serene brow, and there was wrath among the guests, many of whom had risen to their feet, as if to leave, or take part in what threatened to become a fray. At the further end of the room there was a group of men apparently in angry contention. Nussbaum was asking the disturbed guests to take their seats. He greeted the Professor as he entered, taking off his cap, and bidding him a "good evening."

"What is the trouble?" asked Claus.

"There is a man come in who does not know how to behave himself—a foreigner, apparently, as he mixes up all the languages of Babel. He has guzzled until he is tipsy, and now falls to using bad language, and abusing everybody. I must have him removed; I cannot allow the 'Good Preacher' to be disgraced by drunkenness. And yet so pitiable an object! Half starved he looks."

"Let me see him," cried the Professor, the last words calling up the image of his acquaintance, the strolling musician. Pushing his way into the group that were trying to carry the man out, he found that the offender was indeed no other than the starved flautist.

"What, friend!" he said, putting his hand on the man's shoulder, "how come you in this condition?"

The flautist looked at his interlocutor with a stupid stare for a minute, and then cried in broken German—

"Hullo, old fellow! Ah, you're my worthy benefactor!"

"Yes, and you are near getting yourself into serious trouble, besides disgracing a respectable house. Come, take hold of my arm, and go with me. These gentlemen are ashamed of you. Come!"

Resisting at first, the musician gradually allowed himself to be led out of the inn.

"I will see him all right, Neighbour Nussbaum," said Claus, turning to the host of the 'Good Preacher'; "only let Hans come with me in case it be necessary to help him upstairs."

A little assistance landed the flautist at the Professor's door.

"Here is a friend," he said, opening the door, and presenting the tottering musician to his wife.

The flautist made a drunken bow, and hiccupped a "How do you do."

Bear looked annoyed, and said to her husband in an undertone—"Wherever did you pick that up?"

"The gentleman is not well, my dear," replied Claus. "Will you be good enough to make him a cup of coffee while I take him into the washhouse, and give him water and a towel."

"I'll tell you what I would give him," said Zerafine, who had been standing by in mute astonishment, "I would give him water without the towel, and plenty of it. They none of them deserve anything better."

"Claus," said Bear, as the latter showed himself in the sitting-room again, "don't you think we had better take a larger house, and open a hospital for waifs and strays?"

"And hang out a sign, 'The Good Samaritan—here are people taken in everyday!'"

"Thou hast an evil tongue, Zerafine," said the Professor, with a laugh.

"It is not half so bad as my bite," replied Zerafine.

"Then is thy bite worse than a mad dog's," replied Claus.

"But where did you pick up that man, or shadow of a man rather? He looks like Death in the Revelations."

"He is well-nigh starved to death," replied Claus, "and should move your pity, Zerafine; but I'm afraid you have none."

"Oh, I have pity enough for those who deserve it, but does he? Who knows what home he has defrauded in order to fill himself with drink?"

"He is a poor wanderer without a home, and therefore deserves our commiseration. He is the one I met in the streets last evening."

"And raised the wind for?"

"Yes."

"I wonder you did not blow him away."

Bear now entered with the coffee, with which she brought a plate of bread and butter, and the inevitable *wurst*. Claus went to fetch his guest. He found him leaning against the table declaiming in dumb show to an imaginary audience: "They want," he said, with a hiccup, "they want me to play to them. Where is my flute? O, here it is!"

"Who wants you to play?" asked the Professor.

"Why these people—these little red fellows."

Then putting the flute to his lips he essayed to play, but failed to produce a sound.

"Oh, I can't play to-night ; I'll sing you something instead." Then he hiccupped through the following :

"The beggar I trow has the very best trade,
He goes wherever he will,
No trouble has he with hod or spade,
Yet he eats and drinks his fill.
O merry and bold,
He cares not for cold,
Nor for storm—the worst that e'er blew—
Though the crown of his hat
Go flipperty-flap,
And the wind whistle how-do-you-do?"

"Come," said the Professor, taking him by the arm, "come and eat something. Never mind singing now."

"But they say I must do something—either sing or play to them—or they will torment the life out of me."

While he was saying this, the flautist stared with widely-open eyes in the direction of the door, and pointed with his flute.

"Oh, I can manage those people," said Claus, humouring his unfortunate guest. Keep close to me, and they won't touch you. Come along!"

Keeping hold of the poor fellow's arm, he led him into the sitting-room, where, seated in the bright light, the unhealthy influence seemed to leave him. The Professor sat by him all the time, talking to him, and encouraging him to eat. Although he manifested the greatest disinclination, Claus prevailed upon him to take some food. This had a good effect, presently bringing him back to a more sober state of mind.

While the musician was taking his meal, the Professor noticed that he appeared to be very short-sighted, and asked him if it was not so. He replied that it was, and that he had lost his glasses a little while ago, and had not been able to purchase another pair. Claus at once went to borrow his wife's ; Bear only used them when she was reading or sewing. She was at present engaged in the latter occupation.

"Lend me your glasses for our guest," he said ; "he can't see to feed himself."

"What a marvellous defect!" cried Zerafine, "considering that he can evidently see to ply himself with drink so well. Is there, by the way, nothing else of your wife's you would like him to wear?"

"If he had a tongue like yours I should make him wear a bridle," said the Professor.

"You had better put a muzzle on his mouth, and so keep his brains in their place—what he has of them," answered Zerafine.

"We will marry thee to him, and thou wilt have enough for the two," replied Claus.

"The conjunction might be good for some things."

"What, for instance?"

"I should elevate his ideas, or his observations, at all events."

"How?" asked the Professor.

"I should, I fear, have to give him many lessons in astronomy by making him often see the stars."

"Incorrigible woman!" cried the Professor.

When Claus returned to his protégé he found he had left the table and thrown himself upon the sofa, where he was supporting his head upon his hand, and weeping.

"What is the matter?" asked Claus, putting his hand upon his guest's shoulder.

"Oh, wretched man that I am!" he exclaimed with a sob: "a homeless wanderer, an outcast! Oh, why did I not die in my youth! I am a burden to myself, a burden to everybody! I will go out into the night and the cold; that is my place!"

"Another Job, as I live!" whispered Zerafine to Bear, both of them having entered the room after the Professor.

"Be quiet!" cried Bear, putting her hand over the other's mouth.

"You must not go out again to-night," said Claus, putting his broad hand in his fatherly way on the young man's shoulder. "You will feel better in the morning after a rest. Bear," he said, addressing his wife, "I'm sure Frau Grossbein will give our friend a bed for the night, if you ask her: will you go up and see her?"

Bear ascended to the Grossbein dwelling, accompanied by Zerafine, who greatly impeded progress upwards by laughing. She had got one of her laughing fits on, and had to stop every two or three steps to hold her sides.

"You will burst one of these days with laughing," said Bear, who could hardly restrain herself for sympathy; "and it will serve you right for being so hard-hearted."

"I am not hard-hearted," replied Zerafine, holding her sides. "It is only my way of letting off my feeling, just as the new Job lets his off by weeping. Oh, if we had the use of his water-works, what a deal of tugging of water upstairs it would save us!"

This sally was followed by more laughter, until Bear became desperate, and ran up the remainder of the stairs without her.

Frau Grossbein was doing some mending—in fact, making her husband's nether garments decently habitable, while he made music with his nose in an inner room.

"Come in," she said, when she saw her two neighbours; "I thought you were not in bed, because I could hear moving to and fro. You just came up in time; in five minutes more I should have been in bed. Sit down, and I will shut the bed-room door, and then you won't be annoyed by my organ."

Saying this, the good woman shut the door of the inner room, where her husband was giving evidence of the depth of his slumbers.

"How would you like an accompaniment to that?" asked Bear, with a nod of her head towards the closed door. "We have a visitor down there whom Herr Bromm wishes to give a bed for the night."

"He can have the bed in the little room, and welcome; but if he

is a gentleman, maybe he won't like it. What are you laughing at, Zerafine?"

Zerafine had been trying hard since entering to keep her countenance, and now broke out into another laughing fit.

"She has got one of her laughing spells on," said Bear, "and I can't restrain her. She is laughing because our guest is a poor unfortunate gentleman."

"Who plays the flute and weeps," added Zerafine.

All this necessitated an explanation, which Bear and Zerafine made betwixt them. Then it was arranged that Job should have the spare bed, "and," said Frau Grossbein, "I will sleep with one eye open, and if the kerl shows any sign of wandering in the night, I shall be ready to put my fist on him."

While Frau Bromm and Zerafine were on their errand to Frau Grossbein, an altogether unexpected event happened downstairs. Undine had been spending the evening with Annette, her mother, and the little fledgling Nussbaum, for whom she had taken a special liking, he being a perfect little cherub for smiles and good nature. When she bade the Wirthin and Annette Goodnight, Bear and Zerafine had just gone upstairs to see Wendel, leaving Claus and the flautist together. She entered through the kitchen, and finding no one there, passed into the sitting-room. Claus sat with his back towards her, the stranger at the farther side of the room, facing the door. Her step was so light that neither of them heard her enter. The flautist, however, could not help seeing her, although his weak sight (for he had laid aside Bear's spectacles, which did not help him much any way) did not allow him to distinguish her features. But his fixed gaze, and what appeared to the Professor a slight start, caused the latter to turn his head and look over his shoulder. He only caught sight of a retreating skirt, which he knew to be Fifine's; he called to her, thinking the flautist had frightened her away, as he certainly had.

But he received no answer; Fifine indeed had not heard his voice, having left the apartment, and gone quickly down stairs. She stopped at Nussbaum's door, and tapped gently, but without eliciting a reply. She then descended the remainder of the stairs, and passed into the street. Nagelmann was going up as she came down; he recognised her by her light dress and airy floating motion, but could not distinguish her features, the stairs being in partial darkness.

The flautist had recovered somewhat from his depression, and was telling his host something of his past history—how he had been an operatic singer, how sickness had deprived him of his voice, and how one misfortune after another had befallen him, until he had been brought to the street—when Fifine's sudden appearance, and as sudden disappearance, put an end to the narrative, and caused him to ask:

"Who is that graceful maiden? She reminds me so much of one I knew formerly."

"She is my daughter," replied the Professor, not deeming it necessary in this instance to put in the qualifying word "adopted."

The conversation was interrupted by the entrance of Bear and Zerafine with the intelligence that the flautist could be accommodated with a bed on the fifth floor. Without more ado, therefore, as the hour was somewhat advanced, the Professor conducted him to the door of the Grossbein apartment, and there left him with a "Good-night."

There was the utmost consternation in the Claus Broom household when it was found that Undine had disappeared. Every room was carefully examined; then the whole house from the first to the fifth story was searched, but in vain. No one had seen anything of the young lady except Nagelmann, who felt positive that it was the "English maiden" (as he always called Undine) who had brushed past him on the stairs. The Professor came to the conclusion that Fifine, seeing a stranger with him, and not finding Bear and Zerafine in the house, and probably imagining moreover that they had gone out for a few minutes, had run out to meet them; the fact that she had gone without hat or bonnet, or any other covering for outdoors beyond the light wrap she had thrown across her shoulders to protect her from the draught of the stairs when she went down to the Nussbaums introduced an element of doubt into this theory, but did not altogether go against it; anyway it seemed the only reasonable explanation of her disappearance, and therefore Claus and Nagelmann made a rapid survey of the neighbouring streets to see if they could learn anything of her. They soon returned, however, with disconsolate faces. Bear, Zerafine, Annette, and Frau Grossbein were standing at the street door; Nussbaum joined them just as each party had answered the other with a "No," in reply to the query whether one or other had seen or heard anything of the missing one.

"Nun sein nur geduldig!" (Have a little patience) he exclaimed, seeing Bear and Annette weeping. "The girl will turn up directly. She can't have been spirited away. Here is Herr Leitner; he and I will take another look round for her."

There was indeed Adolf; he came round the opposite corner with a swinging step and a song. Ephraim caught the words:

"In mein gar zu dunkles Leben
Strahlte enist ein Süßes Bild,"

and his heart caught up the strain, and finished the stanza, which seemed to him almost prophetic:

"Nun das Süße Bild erblichen,
Rin ich gäuzlich nachtumhüllt."

"Good evening!" said Adolf, approaching the group. "But what is the matter, that you all look so distressed? Annette in tears, and you, Frau Professorin! What is it?"

"You have not seen Undine?" said Claus, speaking first.

"She is lost," added Zerafine, wiping her eyes.

"Disappeared—no one knows where," said Nagelmann.

"She has taken a bit of a run, for the sake of the air, and will be back directly," said the Gastwirth.

So each one put in his or her word of distress or explanation, and Leitner was gradually enabled to understand the cause of the alarm. But he could throw no light on the subject, was hardly able even to offer a suggestion, so strange did the thing appear. Some little hope was derived from the statement of a neighbour—several of whom had now gathered round the little group of disconsolates about the door—that he had seen the young lady running towards the Domplatz.

"Come, Leitner," said Nussbaum, "let you and I go and take a look for the girl, and do you," he added, turning to the Professor and the women, "go in, and hold yourselves in patience. She will turn up all right: I give my word for that."

"That I cannot do," said the Professor. "I must find her, or get no rest till I do; but do you go in (to Bear and Zerafine) and have something warm ready for her when she comes."

"I will go and search too," said Nagelmann; "and I," "and I," cried several others.

The women watched them disappear in the darkness, and then went sorrowfully upstairs.

CHAPTER XI.

WAS SHE AN UNDINE?

It was nearly morning when Claus Bromm at length returned, foot-sore and weary, to his desolate home; the others—Nagelmann, Nussbaum, and Leitner—had returned but about half-an-hour before; all brought the like distressing intelligence, that nothing could be heard or seen of the missing Fifine. Never were deeper signs of mourning in a household. When the searchers first to make their appearance arrived with the news of their non-success, Bear, who had still hoped all through the long hours of the night, quite gave way, and throwing herself upon her bed, refused to be comforted. Zerafine—like the brave little woman that she was—wiped her eyes, and gently chid her mistress for yielding so to despair: for, she said, echoing the Gastwirth's words, "Fifine will turn up all right."

When the first returned she had said, "There are others out yet, some of them will find her!" When all had returned but Leitner, Nussbaum, and the Professor, she said, "Trust them to come back without her!" and finally, when all had returned but the latter, she said: "Herr Bromm is yet out; he will certainly bring her." But he too came alone, and with a rueful face. Then the tears welled up into her own eyes again, and she could not keep them from overflowing; still she coaxed and fondled Bear, and bade her be patient, for all would still come right.

As for Claus, he threw himself into a chair without uttering a word, and sat looking on the floor with a hard, fixed stare. Leitner and the Gastwirth—who had remained—and Wendel tried to cheer him up, but in vain. He sat like one whom grief had petrified. Presently the Wirth stole away to get an hour's sleep before it was time

to see to his cellerers, tapsters, and waiters ; for he was one who left nothing to the perfunctoriness of hired servants. Then Wendel and Leitner were left alone with the Professor, and while the former went to and fro between sitting-room and bed-room to look now at one and then at the other of the chief sufferers, Leitner leaned against the side of the window, and watched the growing dawn.

After a while Zerafine came out of the bedroom, with dry, although red eyes. She was afraid of the silent, uncomplaining grief depicted on the Professor's face, and yet she dared not speak to him. After moving about the room, touching now one thing and now another, as if for an inspiration, she went into the kitchen, and began to busy herself with her usual morning labours, lighting the stove, brushing up, &c., feeling that that was the only way to keep her from breaking down altogether. She had left Bear in a doze, and hoped that it might change into a sound sleep, and last till morning.

Suddenly, however, she heard her enter the sitting-room, and going to the door, saw her approach her husband, her eyes red, and her hair dishevelled. Throwing her arms about his neck, she bade him be comforted, for that his Undine would yet return. Claus neither moved nor spoke ; but the name "Undine" seemed to strike upon his dulled and pained sense, and repeat itself like an echo : "Undine ! Undine !" he said to himself ; "she came like an Undine, and she goes like one. Oh, Undine !"

"Sei nicht zu traurig, mein Claus" (be not too sad), said Bear, still caressing him ; "she will come back again ; she will be all right," repeating for his comfort almost the very words of Zerafine that she herself had refused to be comforted by. The sight of her husband's strong, uncomplaining distress, however, made her resort to the only words of comfort that were available. Drying her own eyes, she put every other thought aside in her anxiety to assuage her husband's grief.

But nothing that Bear did seemed to have any effect upon him. To all her coaxings and remonstrances he turned a deaf ear, or replied by a melancholy shake of the head. He sat in his arm-chair, Niobe-like, utterly indifferent to every thing, and every one about him, so keenly had sorrow stricken him to the core.

The sight was too painful to Leitner ; seeing, therefore, that he could be of no assistance, he bade the Professorin call him if he could do anything for her in any way, and went to his room. Thither Wendel presently followed him with a cup of coffee, and found him sitting in his dressing-gown, trying to comfort himself with a pipe.

"It is the first time, Wendel," he said, "that I have found my pipe unable to soothe me, from which I see that the weed is not of universal potency. I had thought it was good for all ills, but that shows what trifling disturbances of my equanimity I have had hitherto to suffer."

"What do you think has become of the young lady?" asked Wendel.

Leitner shook his head.

"I think," he continued, "Claus Bromm did not call her an Undine for nothing. She was too beautiful for a mortal creature."

"The young man did not reply, and seemed little inclined to speculate as to the nature of the missing lady; therefore Wendel left him to his pipe and his coffee.

When they were left alone, and Zerafine had brought in some coffee, the odour of which was quite tempting, Bear whispered to her to retire, and try to get some sleep; and when she had done so the gentle wife sat down at her husband's feet, laid her head gently against his knee, to patiently wait until the poignancy of his grief should have become somewhat assuaged. The two remained thus for some time, until indeed daylight began to steal into the room. Then Claus, feeling his faithful spouse shiver with the cold, put his hand upon her head, and bad her go and rest.

"Come you too, Claus," she said; "I am sure you want rest most."

"Presently, dear, presently," he replied; "only do you go."

She went and threw herself upon the bed, but could not sleep; and in the adjoining room she heard her husband pacing to and fro, and muttering every now and again to himself.

Towards six o'clock he approached the bedside, and finding his wife awake, he said: "I am going to make one more search, Liebe; I can't sleep, and there is no rest for me until I know for certain what has become of her."

The good woman knew it was of no use arguing against his sorrow, and therefore quietly let him go in search of their lost lamb. She heard him close the street door, and then heard his footsteps going down towards the river, and still listening and fancying she heard his footfalls, though far beyond earshot, she fell asleep.

About the same time Leitner's eyes closed heavily under the hand of the drowsy god. After Wendel left him, finding it impossible to sleep, he sat down and wrote a letter to his friend Fafner. It was as follows:—

"MEIN LIEBER FAFNER,

"How shall I tell you the sorrow that I am in? How describe the poignant grief of my good friends, Claus and Bear, and hardly less of my own beloved Annette? I never knew before what sorrow was; I shall never feel it again with half the pain I do now, unless it be for the loss of my darling Annette, or that of my dear sister, or of my parents, or my equally highly thought-of Fafner; for she whom we have lost—yes, lost, du gute Friedrich!—had become to me almost as much as any of these, unless it be my own Annette; as you must have discovered from the frequent and enthusiastic mention I have made of her—Fifine Montessoro—in my letters. It seems like a dream—so like one, that I have several times found myself asking myself, 'Is it possible that our Undine can have been anything more than a vision?' She came we hardly knew how or whence; she was with us a short season—too fair and bright, and wonderfully endowed for reality it seemed; then all as suddenly she passes from

our sight, we know not how or whither. It seems but yesterday that she came, and to-night she is gone. She is with us just long enough to make every one love her, and wonder how life could be endured without her, and then she is taken from us. You can imagine our trouble—that is mine, and the Nussbaum's, and the good Frau Grossbein's, and my respected landlord and house friend's (for even the silent and solitary Nagelmann was not proof against such brightness, and would open his mouth to speak of her when nothing else could conjure a sound from his monosyllabic throat); but even you cannot come near imagining the grief of Claus Bromm and his good wife Bear. I never saw anything more touching. Had she been their own child, born of their own bodies, they could not have taken her loss so deeply to heart.

"But let me tell you how this mystery came about, for it is a mystery, and one we cannot as yet fathom. I returned home from the theatre about eleven, and was surprised to find the entire household at the street door—the women in tears, the men with faces full of care. Inquiring the cause of the trouble, I was told that about an hour before Undine had suddenly left the house, without bonnet or shawl, or any extra covering, and could not be found. She had been with Annette and her mother all the evening, and was quite cheerful and even gay. When she went in, she found the Professor in conversation with a stranger—one of the waifs and strays this poor man is ever picking up and succouring—and immediately left the room, and, as it would appear, the house. The Professor and Nagelmann went in search of her very soon after she was missed. They had but just returned when I reached the house. We all then started in search—Claus, Nussbaum, Nagelmann, I, and half-a-dozen neighbours—but though we searched nearly every nook and corner of the city, inquired everywhere, and put the police on the alert, we found no trace of the missing one. The Professor gave up the search last of all; I have just seen him; it was a sight to make one's heart bleed; he sat there resting his head on his hand, gazing fixedly at the floor, as though all thought and feeling were concentrated in one intense pang that held heart and soul in a cold stony vice. You, Fafner, who write tragedies and comedies, I should have liked you to see this picture of agony, that even the tender solicitude of a wife could not move. It would have been a relief to have seen him stamp and swear.

"But the morning is at hand, and I must sleep. Goodnight, therefore, and believe me,
 "Deiner,
 "ADOLF."

In the morning, before posting his letter, Leitner added, by way of postscript, the following:

"At daybreak the heart-broken Claus again started forth in quest of his lost bird. As soon as I awoke this morning, I hastened down stairs, not without hope that the missing one might have returned. I learned, however, that such was not the case, and that the Professor was still on his sad quest. Reproaching myself for having

slept, I too started forth, but I fear I wandered aimlessly about, knowing not which way to turn. After awhile I met the Professor by the river side, into whose waters he had been peering for his lost treasure; for he has conceived two theories of her disappearance, supposing either that she has been decoyed into a house of ill-fame, in which our city abounds, or that she has, in a fit of melancholy, destroyed herself; hence his prying into the river. During the night he had had the police search most of the notorious houses, and had himself been with them into the chief haunts of the city's scoundrelism. However, he was still without clue, and was downcast almost to the degree of despair. How changed too! In eight or nine hours he appears to have aged almost to the extent of as many years. I condoled with him as well as I could, but it seemed like a mockery. How he will get over it, if ever, I do not know. When I asked him what ought next to be done, he said, 'I do not know; if I had the means, I would seek her, even if it took me to the world's end; but as it is, I am powerless—compelled to remain here, and earn my bread. Such is the way in which Providence tantalizes me. I have been one who has been tender and compassionate to his fellow-men, if any one has been so, and all I sought for myself was a child to love—perhaps foolishly to dote upon; at length it was given to me, or I thought so, and God knows how I was grateful! But Providence only mocked me; the cup was barely to my lip ere it was dashed away!'

"Ah, Fafner, what would I not give to be able to lighten the old man's sorrow! But all one can do is to follow the example of his poor suffering wife and the faithful Zerafine—look on in silence, with a heart full of pity. Adieu!"

(To be continued.)

Obituary.

MR. JAMES MOIR.

We regret to have to record the death, under melancholy circumstances, of Mr. James Moir, Surgeon, Aberdeen—a gentleman who for many years had taken a deep interest in the subject of Phrenology. As we learn from a local newspaper, the Association of Chemists and Druggists in Aberdeen had arranged to celebrate their annual holiday by an excursion to Aboyne on the 27th of June last, and Mr. Moir had intended to accompany them. On the morning of that day, fearing that he might be too late for the train, he had run great part of the way to the station, on reaching which he complained of feeling ill and giddy, sat down in the refreshment room, and almost immediately expired. The proposed excursion was, as might be supposed under the circumstances, abandoned, and

the mournful tidings conveyed to the bereaved family. Mr. Moir had been established as a medical practitioner in Aberdeen for about thirty-five years. His patients, we are told, were mostly in the humbler walks of life, among whom he laboured unweariedly, and in a most unselfish spirit, the hope of fee or reward being to him quite a subsidiary consideration. These and many others will now miss his kindly honest face and genial homely ways. Mr. Moir was one of the band of enthusiastic disciples that Mr. James Stratton attracted round him some thirty or forty years ago, when pursuing his phrenological researches, particularly regarding the size of the brain at different periods of life, which he ascertained by a very exact mode of measurement that he had devised. Mr. Moir, from his medical knowledge, was able to be of great assistance to Mr. Stratton, and we believe supplied him with most of his measurements of the heads of very young children. Mr. Stratton seems to have had a wonderful faculty, common to all great masters, of attracting round him, and inspiring with his own spirit, men of mark and ability. Among others we may mention William Jaffray, Walter Riddell, and William Brodie, afterwards the distinguished sculptor of Edinburgh, to whose genius modern Athens is indebted for not a few of her public monuments. It may not be out of place to mention here a fact that we believe has never been recorded, that Mr. Stratton considered the increase in size of Mr. Brodie's brain in mature years, as the most remarkable instance of the kind he had ever met with. Between the ages of thirty and thirty-six it had increased no less than from 155 to 166 cubic inches. He accounts for this from the fact that up to the age of thirty he had worked at the trade to which he had been apprenticed. He then adopted the profession of a sculptor, and as a high degree of excellence was necessary in order to attain distinction, he laboured at it incessantly. It was to him a labour of love, and he devoted himself to it with all the energy and activity of an ardent temperament. "Such a case," says Mr. Stratton, "must be of extremely rare occurrence, and the strong probability is that only an iron frame, a strong constitution, and robust health such as he enjoyed, could withstand exertion to such an extent, and escape destruction."

Correspondence.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—In this month's number you give two instances of pathological fact confirmatory of phrenology, and invite any one who can to give other well-authenticated facts of the kind. The following case occurred last March, and is copied from my note-book. I enclose the name and address of the gentleman referred to in the account.

On leaving a prayer-meeting the other evening in company with —, he immediately began to relate to me (he not being aware at the time of my acquaintance with phrenology) the following singular experience. A week previous he had gone to a prayer-meeting at which there was a lack of persons accustomed to take public part in the devotional exercises. Under the circumstances he experienced an urgent desire to pray in the meeting, but was deterred from doing so by the fact that he was suffering from severe catarrh; his voice also was affected, so that he *did not* take part in the meeting. Now comes the singular experience. He assured me that, if I could credit him, from that evening all through the ensuing week, he had “done nothing but pray,” and that even in the night, during the intervals of sleep, words of prayer would be running through his mind—that this was so constant as to interfere seriously with his transactions in business. This praying mania, he said, was attended by a “dreadful heat” and a “bursting” sensation, *at the top of the head*. Could I throw any light upon the mystery? I at once answered, “Why, yes, that is an affection of the praying organ;” and asking permission to place my hand upon his head, I found even then (although the symptoms had much subsided) that the heat was very great, and was, moreover, confined exactly to that space allotted to the organ of Veneration. So marked was the difference in the degree of heat at this part from that of the surrounding organs, that I involuntarily gave a start. I placed the full palm over the top of the head, and the sensation was similar to that experienced when placing the hand above the chimney of a table-lamp.

About a week after the above, I had the opportunity, at the gentleman's desire, of examining his head more fully. Of course Veneration was large, so was the moral brain comparatively, which accounted for the tendency described whilst under this state of temporary congestion. Language was also large, and excitability high. It should also be added that the head was rather below the average size, rendering him less able to resist mental strain, or the effects of pathological changes in the brain.

I look upon this instance as strongly supporting the fact that this region of the head is the seat of the worshipping sentiment.

Yours, &c.,

F. C. BARRATT.

Facts and Gossip.

Dr. G. DECAISNE has submitted to the Society of Public Medicine the results of some interesting observations concerning the effects due to the use of tobacco among boys. Thirty-eight youths were placed in his charge, whose ages varied from nine to fifteen, and who

were in the habit of smoking, though the abuse of tobacco varied in each case. The effects, of course, also varied, but were very emphatic with twenty-seven out of the thirty-seven boys. With twenty-two patients there was a distinct disturbance of the circulation, bruit at the carotids, palpitation of the heart, deficiencies of digestion, sluggishness of the intellect, and a craving, more or less pronounced, for alcoholic stimulants. In thirteen instances, there was an intermittent pulse. Analysis of the blood showed in eight cases a notable falling off in the normal number of red corpuscles. Twelve boys suffered frequently from bleeding of the nose, and a few complained of agitated sleep and constant nightmare. Four boys had ulcerated mouths, and one of the children became the victim of pulmonary phthisis, a fact which Dr. G. Decaisne attributed to the great deterioration of the blood produced by prolonged and excessive use of tobacco. As these children were all more or less lymphatic, it was not possible to establish a comparison according to temperament, but of course the younger the child the more marked were the symptoms, and the better fed children were those who suffered least. Eight of the children in question were aged from nine to twelve years. Eleven had smoked for six months, eight for one year, and sixteen for more than two years. Out of the eleven boys who were induced to cease smoking, six were completely restored to normal health after six months, while the others continued to suffer slightly for a year. Treatment with iron and quinine gave no satisfactory result, and it seems tolerably evident that the most effective, if not the only cure is to at once forswear the habit which, to children in any case, is undoubtedly pernicious.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

H. S. (Yarmouth).—The leading characteristic of your organization is that you are adapted to both mental and physical action. You are nimble on the feet, and capable of being very graceful. You have command of thought and action; are free and open-hearted, amiable, rather unselfish, and quite candid; are capable of strong will power, have a high degree of self-respect, and are susceptible of a high degree of intellectual and moral culture; are ardent and earnest, almost too susceptible, fond of oratory and music, and capable of being very entertaining. You have a good pliable intellect, are

quick of observation, governed much by what you see and experience, and have more of a practical surface mind than a deep original one.

E. J. P. (Yarmouth).—Very positive both in action and opinion; governed by what he sees and knows; talks about his own experience, and is usually the hero of his own story. He easily learns to do things requiring observation, and could succeed in any line of life requiring experience, and would learn more from experience than from the book. Could make a scientific man. The reasoning powers are in unison with the percepts, though he is not an abstract thinker. He is sharp and pointed in his jokes, and mirthful and forcible rather than copious in his speech. He is intuitive in his perceptions of truth, positive in his opinions, independent in his disposition, and ready and willing to take responsibilities. He has scarcely judgment enough at all times to regulate his impulses and restrain his actions. He is not like other people. He is candid and frank, and not very greedy for what he has not got. In an emergency he would run the risk of losing his own life to save that of another. He is prepared to do daring things if necessary, and will make a mark in the world.

W. P. (Birmingham).—The natural gifts of this man are those of a scholar. He has accurate powers of speech, understands the use of words and terms, and is methodical in his way of doing things. He is accurate in his business transactions. Is characterised for loftiness of mind; is exalted in his views, and his aspirations do not centre in wealth, and fashionable position. He thinks much about another life, and has always had a desire to advance, improve, and become more worthy of respect. He has the element of industry, and possesses great firmness and perseverance. He minds his own business; is never rude or radical in his views, yet sometimes may trust to the honesty of others too much. Is kind and neighbourly, more likely to lend than to borrow, and hates to be under obligation to any one. Strong in his religious views, though liberal in his theology. Is characterised for his intuitive discernment of truth, says many wise things, and wants things as nearly perfect as possible.

E. S. (Highgate).—This photograph indicates a high degree of mental susceptibility, great nervous power, and much intensity of feeling. It also indicates great natural strength of constitution. The lady is consequently capable of enjoying and suffering with great intensity, and of bearing up under many trials and difficulties. Her intellect is a very sharp one, and she has more than common power to acquire information and show judgment and understanding. She is also very ingenious, and capable of doing many things requiring taste and manual dexterity. She is kind-hearted, very affectionate, and capable of much devotedness of attachment. Is perhaps a little too suspicious, and sometimes too sharp in her temper, and too critical in her judgments, especially of people.

E. C. (Flint).—You have a great deal of natural ability, and only

need to assiduously cultivate it in order to make more than a common man of yourself. Your intellectual powers fit you *par excellence* for scientific study, and for a business that requires the *knowing* faculties, as contra distinguished from the thinking faculties; not that you do not think, but that you are not a theoriser and originator, so much as you are an observer and a reasoner from observed facts. You would make a first-class mining engineer, mineralogist, contractor, or anything in that line. You can also manage, superintend, plan, and organize; have extra good powers for understanding mechanics, and for making estimates, &c. You have plenty of resolution—sometimes too much.

W. A. G.—This photograph indicates a good compact organization, both physically and mentally. He should succeed in anything he takes hold of, provided it be of a practical nature. Will not be brilliant, showy, or particularly glib as a speaker, but he possesses a good, substantial, practical intellect. Has good moral powers also, and is by no means lacking in energy. Will make a true husband and faithful friend. Has quite enough temper, but is very kind-hearted.

J. W. H. (Saddleworth).—Are a genial, friendly, and companionable man, full of life, wit, and good humour. Few men are more affectionate. Have much imagination, and if you have not learned to check it, you are liable to be led astray by it. Possess more than common power of language, and have some of the powers of an orator. Are peculiar in your religious beliefs, and not like other people in anything. Are a great observer, and possess powers to acquire and systematize knowledge, but have not enough concentration.

W. H. B. (Macclesfield).—This young man has a very peculiar head. It is developed in the upper part somewhat at the expense of the lower. He is consequently characterised for thought, reason, imagination, wit, &c., rather than for general memory of details, observation, and scientific knowledge. Has the qualifications for a scholar, for a writer, a musician, or for the Church. He will be much drawn in one or other of these channels, for his predilections will be in favour of all that is high, æsthetic, and moral, rather than the reverse. He will need to take special care of himself physically.

“The finger of God hath left an inscription upon all his works, not graphical or composed of letters, but of their several forms, constituous parts and operations which, aptly joined together, do make one word that doth express their Nature.”—*Sir Thomas Browne*.

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REV. JONATHAN BAYLEY M.A., Ph.D.

THE likeness of this rev. gentleman indicates a high and a good quality of brain. His power is quite fairly distributed, physically and mentally, for he is naturally well rounded out. His physiology indicates warm blood, tenacity of life, power to labour, and to hold on.



His physiognomy indicates earnestness, sincerity, penetration, and desire to investigate and examine everything.

His head indicates three prominent points of character, or three general tendencies of mind.

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First his energy, industry, and desire to overcome obstacles. He cannot keep still so long as there are impediments in his way to progress. He has all the indications of being a hard-working, industrious man.

His second strong quality of mind comes from his great power to acquire knowledge, and ability to utilize the same. The tendency of his intellect is both literary and scientific. He is fond of facts, and is a close student of nature; and is disposed to study the bearings of everything. He is very methodical in his habits, modes of study, and manner of presenting a subject; has great powers of order and arrangement, and must do things well, or not at all. His forte in reasoning is by analogies, comparison, and similes. He makes everything clear and tangible, and easily understood. He has remarkable powers of intuition, and is almost a prophet. The present to him is only a stepping-stone to the more important future. He is a quick discerner of truth, and readily perceives its bearing and application, and is not satisfied till he gets at the core or essence of things. One of the strongest desires he has is to know as much as possible about the Divine mind and character; his inquiries naturally tend that way.

The third and strongest tendency of his mind comes from his high, broad, round, coronal brain, which must have been an hereditary gift, for it is in his natural organization to be high-toned, moral, and religious. He appears to have all the moral and religious faculties largely developed, giving him distinct ideas of justice, strong feelings of sympathy, and a desire to do good, joined to strong religious emotions, and feelings of devotion and respect; strong faith in spirit-life and influence, and strong hopes of immortality and a future life. His imagination takes a moral and spiritual direction, giving great scope of mind, with a creative, inventive tendency. He has ease, grace, and versatility of manner, and yet with his large firmness, he has great will-power and stability of character, and thus exerts a steady, uniform, consistent influence over others.

The Rev. Dr. Jonathan Bayley was born in Salford, Manchester, in 1810, and in 1831 he was the corresponding member of the little society of the New Church in that place. In 1834 he became the minister of the Accrington New Church Society. In 1836 he was ordained, and he is now the senior minister of the New Church in the world, and the present Conference will be the seventh over whose deliberations he has presided. After a sojourn of twenty years at

Accrington, during which the Society became, what it still continues to be, the largest in the kingdom, Dr. Bayley accepted the pastorate at Argyle Square Church, King's Cross, London, where he laboured with great success for eighteen years. He then undertook the charge of the church in Palace Gardens, The Mall, Kensington, which has just been purchased and presented to the Conference by the late John Finnie, Esq., of Bowdon, at a price, including a partial endowment. In that building he has gathered a large and prosperous society. His contributions to the literature of the denomination have been extensive. A series of lectures delivered by him at Brighton, and issued under the title of "Great Truths on Great Subjects," is now in its 38th thousand. His other works are: "The Divine Word Opened;" "Scripture Paradoxes: their True Explanation;" "Essays and Reviews' Examined;" "The Divine Wisdom in the Histories of the Old Testament," and several others. He has, we are informed, in the press a work to be entitled, "Swedenborg Verified by the Progress of a Hundred Years."

Those of our readers who desire to know, without much labour or cost, what the peculiar opinions of Swedenborg were, and what the tenets of the New Church, will find all they want in a work of the Rev. S. Noble, who describes himself as "late Minister of the New Jerusalem Church." Mr. Noble's work is entitled, "An Appeal in Behalf of the Views of the Eternal World and State, and the Doctrines of Faith and Life held by the Body of Christians who believe that a New Church is signified (in the Rev. chap. xxi.) by the New Jerusalem: embracing Answers to all Objections."

DOMESTIC ECONOMY IN SCHOOLS.

Among the signs of the times, considered in their bearing on the social condition of the people, there are few which, to a far-sighted observer, are more full of augury for future good than the movement which is now gaining force for promoting the teaching of Domestic Economy in our Government Schools. Domestic economy, or a knowledge of the art and science of home, lies at the very root of the nation's life. It concerns itself with the expenditure, the enjoyment, and the use of fully one-half of the nation's wealth. The earnings of the labouring classes, with the exception of some sixty or seventy millions spent annually in drink, are devoted almost wholly to the maintenance of the home, and are mainly laid out by women. When we reflect further, that the health and

comfort, the physical, and to a great extent also the moral, well-being of every member of the community, depends more or less upon a right understanding and application of the principles of household science, we cannot but rejoice at the efforts that are being made to give it a prominent place in the curriculum of our national elementary education.

Cookery, clothing, the cleaning, warming, and ventilation of the dwelling, health, household management, nursing, thrift, temperance—these are the various subjects which, under the head of Domestic Economy have been included in the Education Code. That an immense amount of national ignorance prevails upon these points is but too true; and equally true it is that a large proportion of the poverty, disease, and crime, by which multitudes among our working population are afflicted, is the direct consequence of such ignorance. Half the drunkenness in the country, we are told on good authority, is owing to the foul atmosphere of the close, ill-drained, ill-ventilated dwellings in which, for want of knowing better, many a working-man houses himself and his family; or to the sinking and craving for stimulants induced by the unwholesome and innutritious food on which his wife's ignorance of cookery and the nature of food, compels them to subsist. Bad food and bad air are among the greatest foes to temperance, as they are to health. Hospital doctors will tell us what a frightful amount of disease and suffering is entailed by them, and every poor-law officer knows how the ranks of pauperism are swelled by those who have been driven to want by sickness or by drink. It is not too much, perhaps, to say that our hospitals, jails, and workhouses, would be weeded of half their occupants, if we could take out those who, but for their ignorance of the simplest laws of household science, would never have been there; while at the same time the country would be relieved to a proportionate extent of the cost of their support.

To change the habits of the adult population is a task beyond the power of any government, however much it may do or strive to do in various ways to provide facilities for instruction, or to make improvement possible in matters relating to health and home. It is to the children that we must look if any wide-spread good is to be effected. Their habits are still unformed; their minds are plastic and receptive; there is no inveterate growth of apathy, prejudice, or custom to be rooted out before the ground can be prepared for the seed of knowledge to be sown. For six or eight years the juvenile working-class population of the country are under training now in our Government schools, and in that space of

time how much may be taught of the laws of life and living. Even an hour a day, steadily devoted to the teaching of Domestic Economy as laid down in the Code, would suffice to give to every boy and girl in a well-managed school an amount of knowledge that could not fail to be of incalculable and constant service throughout the whole period of life. And we may well believe that in many cases the parents themselves will share in the benefit, and that many a home—squalid, unhealthy, and wretched through ignorance alone—will be sweetened and brightened as the school lessons filter down from the younger to the elder members of the household.

There is one point in connection with this subject, which cannot be too strongly urged, and that is the importance of more largely enlisting the services of women in the work both of planning and carrying out our system of primary education. The training of children is emphatically a woman's work, and all experience tends to show that it suffers if either her counsel or co-operation are wanting. It has been urged that the post of School Inspector should occasionally be given to women of standing, experience, and ability. The question deserves consideration. Surely a sensible, practical, well-educated woman would be in many respects better fitted to examine and report, where girls and young children are concerned, than the young University graduates to whom the duties of the office have been hitherto exclusively assigned. Women, too, would be much more likely than men to further effectually the teaching of domestic economy in schools. It must be owned that, all-important as it is, this section of the Code has not met with any great encouragement from Her Majesty's present Inspectors, though the circumstance is hardly, perhaps, matter for surprise. For can a graduate in honours be expected to examine with any amount of dignity a class of little girls in the proper mode of cooking a potato, or scrubbing a cottage floor?

It would be a mistake, however, to suppose that a knowledge of domestic economy is to be taught only to girls. An acquaintance with the laws of health, thrift, ventilation temperance, etc., is just as important to boys as it is to girls, though the practice of the arts of household science is mainly, of course, the province of women. To use the words of the Prince of Wales, "the knowledge of domestic economy is the knowledge of all that makes home-life moral and happy, and is at the root of the education of every young child." If our Government schools are to be the nurseries of a healthy, prosperous, and progressive population, the science of home, the

laws of life and living, must be taught to all, boys and girls alike, and taught with as much efficiency and care throughout the whole school course as any other branch of education.

UTILITY OF PHRENOLOGY.

By REV. GEO. BRADBURN.

(Continued from page 333.)

We observe in the next place that phrenology is calculated to be of great use to parents. But after the remarks which have been made on its utility in application to the business of education, little requires to be said on this point. So far as it is useful in education it is manifestly of use to parents; for to them belongs the first and most important part of the education of children. It will teach them among other things in what way their children may best be governed—a kind of knowledge in which it must be confessed many parents are lamentably deficient. To them it is often a matter of surprise that their children do not all behave alike, since they are careful to treat them all in the same manner, and keep them under the influence of the same educational circumstances. But to the phrenologist this would be no marvel. Indeed he would recognize, in the source of the parent's wonderment, the true reason of the diversity of conduct in the children. He would see that it sprung from the very fact of their being treated alike. For he knows that there are often great differences in the natural endowments of children, even of the same family; and that, therefore, there must be a corresponding dissimilarity in the modes of treating them in order to produce a similitude of deportment and feeling. What might have an excellent influence upon one, he knows would be fatal to the virtue and well-being of another. He knows too, that the means frequently employed to correct the wayward dispositions of the young, have a direct positive tendency to render them more turbulent, and less disposed to obedience. Of this he is just as well assured, as of the physiological axiom, that excitement and exercise of any particular organ tends to increase its magnitude and power of action. And this invaluable knowledge he derives from his science. Phrenology, therefore, must be of immense importance to parents and guardians, as an assistant to them in governing aright those whom the Creator has committed to their care.

And that it is fitted to be of great use to them, in selecting

appropriate occupations or callings for their children, must be abundantly apparent, we think, from what has been already said. None, we trust, will pretend that something of this sort is not generally needed. It is well known that in nothing are parents oftener perplexed, than in fixing on suitable professions or employments for which to educate and prepare their children. In nothing, perhaps, do they oftener mistake. And when, as is frequently, if not commonly done, the subject of choosing his future occupation is left with the child, the probability of avoiding miscalculation is scarce increased. This would require a thorough knowledge of one's self, combined with a disposition to act on it. Few men can be said to know themselves. The number of youths of whom it may be said, is of course still smaller. They are usually guided by mere fancy in making the selection, not by self-knowledge and rational reflection upon their own powers ; so that it not unfrequently happens that we see a man in the pulpit, or at the bar, who ought to have been an artizan ; and another at the anvil, whom nature has fitted to confer lustre and renown upon literature, oratory, and science.

It has been, and is, the misfortune of some to imagine that mere learning, or the power to call things by different names, is enough to confer greatness and distinction. And on this principle, and in this hope, many a fond parent forces his son through a collegiate course of studies in absolute violation of the nature and capacities of the youth, who should have been put to a trade, or perhaps into some mercantile house where he might be useful to himself and beneficial to others.

Parents, therefore, will not consider it as one of the least advantages of our science, that it is calculated to guard them against all miscalculation of this kind, and enable them to select for their children just that calling in life, which their natural endowments fit them to prosecute with success.

And there is yet another respect in which our science may be eminently advantageous to parents. We had thought to pass over it in silence, but further reflection convinces me that it is of too deep importance not to be adverted to. The advantage to which I refer is this : it will enable them to make a right disposition of their sons and daughters in marriage, or at least will prevent them from sanctioning and encouraging their matrimonial connections with persons whose constitutional dispositions might render such connection a source of misery, and not of bliss, to the parties concerned. We need not be told that many of the troubles and infelicities of the married state, and the numerous divorcements with their concomitant evils which are per-

petually occurring, arise from the conjugal union of persons whose natural failings, tastes, preferences, and peculiarities, utterly disqualify them for enjoyment of each other's society. Of this we are all aware; and are surprised, perhaps, that such persons do not more frequently discover their mutual unsuitableness for each other in season to prevent these lamentable evils. But in order to have done this, either must have known the other's innate peculiarities of constitution. And of them they could only judge, by observing each other's actions, and the testimony, perhaps, of kindly friends or acquaintances; very valuable sources of information to be sure, and from which a correct judgement in the premises may often, but not always be formed. Not always I say, because the manifestations of conduct, which form the subject of observation, occur, it may be, in a widely different relation, and under very different circumstances. One whose conduct would appear in the highest degree amiable, kind, and deferential in some relations, might be sour, selfish, and tyrannical in other and different relations. He who seems a saint in society may be a savage in his family; a contrariety of character which we could scarce imagine to exist in the same individual, were it not so frequently forced on our observation, but of which, nevertheless, we find a most clear and satisfactory explanation in the phrenological doctrines. And further; the combination of natural qualities which would constitute one an excellent companion of this person, would render such a one equally unfit to be the partner of that; though in point of moral dispositions, the latter might not be at all inferior to the former. In view of these facts then, and with only the customary means of judging of character, why should it be deemed strange that the calamities in question are not more commonly avoided? And why should we wonder, that many have come to regard the much-talked of joys of the married life as mere chance-affairs, as unworthy to be assuredly reckoned on as the fortunate throw of a die, or as the certain success of a lottery ticket, where there are twenty blanks to a prize? Ought we not rather to be astonished, that this notion should not have won more converts than it even has, and that the evils we have adverted to are not more numerous, and more widely extended through the social fabric, than they really are? But these evils, numerous and extensive as they are, may be prevented, if not altogether, at least in a great measure, by the assistance which phrenology affords. They may, indeed, be in some good measure prevented without phrenology, if persons would but act on the knowledge they already possess.

But even this knowledge, they would be much more likely to practise upon, if acquainted with our science ; which, at the same time, would effectually secure them from many of the ills under consideration, to which they would otherwise be in imminent danger of falling victims.

The unthinking may smile at these announcements ; but if our science *be* a science, and not a chimera of the imagination—a wild delusion—no truth is capable of clearer demonstration than they. We need not add how important it must therefore be to parents, who feel desirous of giving their sons and daughters such instructions as, if observed, would guide them aright in the formation of matrimonial alliances ; and who will know when it is their duty to grant and when to withhold that assent which is usually and justly deemed of consequence to the consummation of such alliances. We address no remarks on this subject directly to the younger members of community, whom it so vitally concerns, because we are persuaded that if parents and guardians do but understand it, these will never be left long in ignorance of it. And let both but know and appreciate, and act upon its principles, and we dare affirm that a very great proportion of the misery with which society itself is afflicted would soon be got rid of ; for then, in selecting a partner, “for better, for worse,”—which in this case, however, would always be “for *better*”—regard would be had, not as is now so often done, to the blandishments of wealth and fashion, and exterior beauty, but to those eternal conditions on which the Creator has made social, intellectual, and moral enjoyments to depend, to the physical organization in connection with the natural endowments, the inward tendencies and dispositions of the mind, and the fitness of these last, in either party, to act in harmonious combination ; all which, we say, are easily ascertainable by the lights of our new philosophy.

We mention, lastly, that phrenology is fitted to be of extensive usefulness to ministers of the gospel. In no profession is a thorough knowledge of man more indispensably important than in the clerical. The clergyman's vocation brings him into contact with almost every imaginable variety of human character. The high and the low, the wise and the ignorant, the humble and the proud, the meek and the pugnacious, the cowardly and the daring, the cheerful and the melancholic, the credulous and the sceptical, the believing and the disbelieving, the virtuous and the vile, all are alike the objects of his concernment, and to all he would be serviceable, by administering to their several wants and necessities. But, in order to operate successfully on persons

of so widely differing dispositions and characters, to direct his efforts so as most effectually to promote their true interests respectively, it is necessary that he should know somewhat of the causes whence such diversity of character proceed; just as the physician should understand the cause of his patient's complaint before he can prescribe the most effectual remedy. A just appreciation of these would be to him of more real practical usefulness than would the utmost familiarity with all the homilies and textual criticisms, and sectarian dogmas, and theological polemics that have appeared since the days of the Apostles. These causes phrenology professes to unfold. It, therefore, must be of inestimable importance to every teacher of religion, to every pastor who would give to his flock "a portion in due season," and prepare their immortal minds for the society of the spirits of the just made perfect. It opens up to his view, what to others is involved in impenetrable obscurity, the principle origin of those motive-powers which move and govern men in all the various diversified spheres of human life. And it shows him with just what motives to ply individuals, when he would restrain them from, or direct them to any particular course of action; a kind of knowledge, which we think we may safely affirm, none more often feel the need of than ministers of the gospel. Different persons are very diversely affected by the the same circumstances. What would strongly move one may be entirely inoperative upon another. All this may be generally known. But the reasons of it are known to but very few. Hence, but very few succeed in exerting a controlling influence over numerous persons of differing qualities and dispositions. For nothing, perhaps, was the great Napoleon more distinguished than for the power he possessed and manifested of influencing and governing his fellow-creatures. And for this he is supposed to have been in no small degree indebted to his deep knowledge of human nature, and his extraordinary tact in immediately detecting the peculiarities of all who chanced to come into his presence. He knew well the natural language of the various feelings with which man is endowed. And this was, probably, the grand secret of his success in disciplining individual character, which enabled him so easily to bend men to the promotion of his own plans and purposes. But he knew not the causes which conspire to produce that diversity of character with which he was so familiar, and could so readily recognize. Phrenology only could have acquainted him with these, and a knowledge of this science would have added much to the power which he already possessed in so wonderful a degree. Now all will admit, that the peculiar power

just adverted to must be of immense value to all who have much to do with influencing, governing, and directing mankind. For it is a power which may be used for good or for evil, for engaging men in the service of Satan, or in that of the Saviour. Is it not then, especially important to the clergyman, who would rescue the souls of his charge from the dominion of sin, and train them up to the habitudes of piety and of Christian virtue? This power may be derived from phrenology. Humble individuals may possess themselves of the invaluable boon. The clergyman whose intellect is, as that of most men must necessarily be, immeasurably inferior to that of the gifted Napoleon, may yet derive from this science a power of discriminating character, and dexterity of plying individuals with just the motives and sanctions that would be most likely to effect the object aimed at, superior even to those of the renowned Emperor of the French. We do not say (for we have no hope of human perfectibility here) that phrenology would enable him to make perfect saints of all, as things now are. We fear that nothing short of the exertion of a miraculous power could produce such a transformation in many. We only say that, with it the Christian minister may do for his people all that may be done for them, in the present circumstances of things. And this would be doing vastly more than has been, or can be, done without. For centuries past constant efforts have been making by the wise and great to regenerate mankind; and yet, perhaps, it may well be questioned, notwithstanding all the *talk* which we hear of the progress of our race in virtue, whether there has been a time since the days of Melancthon and Luther, in which a great moral regeneration was more needed than at the present period. And may we not, *a posteriori*, reasonably conclude, that other means are needed in addition to those which the teachers of religion have generally employed, in order to make men what they should be? The unspeakable utility of preaching and praying can be doubted by none who know anything of our nature. None can reasonably doubt that the beneficial influence of these has been, and will be, felt by millions, both in time and in eternity. Yet, we cannot but think, that if these means were of themselves sufficient to make mankind what they ought to be, they (those at least who live in Christian lands) had been made so long since. It is our own humble opinion—it is, we suppose, the opinion of every phrenologist—that these means are *not* sufficient, how important soever they may be, and that others *are* needed to accomplish the great object proposed. Nay, as phrenologists, we not only believe, but strenuously

maintain that to accomplish for man in this life what Christianity and Christian ministers aim to do, the highest degree of happiness of which his whole nature is here susceptible, other means as auxiliaries to the ones now used must be brought into operation. And what these are may, we think, be learned from our science. But because we thus insist on their being employed as an indispensable condition to accomplishing, so far as the present life is concerned, the high objects of Christianity, let no one presume to say that we thereby undervalue the records of inspiration, and the institutions of our holy religion. The Bible is indeed, or rather it should be, the rule of human conduct, and the directory of human faith. But it was never designed, we think, to point out all the means by which men may be brought to regard that rule, and to cherish that faith. There was, it would seem, no necessity for this being done. For, the Author of Revelation had taken care to endow men with intellects, whereby, of themselves, they might seek out and apply many of the requisite means. He has also connected with the employment of those intellects, a consciousness of the most pleasing and grateful kind. It therefore is alike the duty and the privilege of man to avail himself of all within his reach, that is adapted to aid him in the all-important work of conforming to the will of Heaven. And of such aid we say, there is much to be derived from phrenology; a science which we believe is, more than any other, calculated to be the handmaid of religion, and of every ennobling virtue. We need not, therefore, say anything further in proof of its utility to ministers of the gospel. Yet it may not, perhaps, be amiss to cite the declaration of one who for many years enjoyed its advantages as a Christian pastor. We refer to the Rev. Dr. Welsh, now Professor of Church History in the University of Glasgow, who is not only distinguished as a divine, but is also one of the most profound metaphysicians of the age. "I think it right," says the learned Professor, "to declare that I have found the greatest benefit from the science as a minister of the gospel. I have been led to study Christianity anew in connection with phrenology, and feel my confidence in the truth of our holy religion increased by this new examination: in dealing with my people in the ordinary duties of my calling, the practical benefit I have derived from phrenology is inestimable."

We have thus endeavoured to answer the question with which we began, "Of what use is phrenology, if it be true?" We have, however, been able to say but little in comparison of what might have been said on the subject of its utility.

Some of the more palpable uses to which it may be applied we have purposely left to be inferred by our readers. But enough, we trust, has been said to satisfy them that phrenology, if true, has higher claims on the score of usefulness, than can be justly set up in favour of any other system of moral science which has yet been known to mankind. If, indeed, in the little we have said of its merits, we have been guilty of no exaggeration—and we certainly have not been, if it is true—we think we may safely say, that, in respect of real utility, phrenology is surpassed only by the divine religion of our Saviour.

We have here a remark to offer for the consideration of those who would avail themselves directly of the practical advantages of our science. Before you can do this, my friends, you must make yourselves acquainted with its principles and true mode of applying them. This precautional advice may be deemed quite unnecessary; for it may be supposed no person of common sense would ever think of appropriating a thing to his service without first knowing how it might be done. If so, you assuredly mistake. It is what may, it is what does, happen, and not unfrequently. Every science has its sciolist's. And these unfortunately, often imagine that all which needs, or can be known of it, is possessed by them. Phrenology, from the exceeding interest generally felt in the subjects it contemplates, is likely to have an unusual share of this sort of friends. There is uncommon danger that many with but a mere smattering of the science will set about applying it, or what they conceive to be it, to the practical concerns of life. Such may injure both themselves and others, and excite in more enlightened minds a most thorough contempt of phrenology and of all that pertains to it. And it is, therefore, that I urge you to become acquainted with its principles, and the true mode of applying them, before you even dream of making the science practically useful to yourselves. We should not, perhaps, be so particular on this point if we had not already witnessed somewhat of the evil against which we admonish you. But we have seen with emotions of sorrow, mere sciolists, and ignorant pretenders, manipulating the heads, and inferring the characters of persons, with all the gravity and assuredness of one who is a master of the science. Indeed, we think it but fair to apprise you, that it is not in the power of all to become practical phrenologists. Phrenology itself proves this, if it proves anything. The absurd assertion of a late reviewer, that "any man, woman, or child," who will but procure a marked-plaster-bust, and read Spurzheim's description of the cerebral organs, may

forthwith become a philosopher of this school, is one of the numerous slanders which have been cast on phrenology by the ignorant and the malicious. Let us not, however, rank the reviewer among those of the latter class. Charity prompts us to assign him a place in the ranks of the former. And, for ourselves, we have no doubt of his absolute acquaintance with our science, and we found our opinion on the article itself. We feel quite sure it would have never been presented to the public had not the author in some unlucky moment imbibed the idea which he has most unwittingly announced, that any one may know all of phrenology who will take the trouble to look at a plaster-bust, and run over the leaves of Spurzheim's account of the faculties. Let those, therefore, who would know phrenology, and appropriate to themselves its inestimable benefits, beware of the stupid mistake of the reviewer, and remember, that this science, like every other that is truly valuable, can be learned only by a long-continued course of study, and careful observation. I have said, that all may not become practical phrenologists. And the reason is, that all have not the requisite faculties sufficiently developed. One person may be profoundly skilled in the metaphysics of the science, and know scarce anything of what has been called its organology—or, in other words, have scarce any ability to distinguish minute differences of size and configuration. Another may possess an unusual facility of perceiving the peculiar forms and dimensions of crania, and yet find it quite impossible to comprehend the philosophy of the science. Neither of them may become, what might be termed a practical phrenologist. To be able to apply the science to the common business affairs of life, the excellence of both should be combined in the same individual. Both, however, and particularly the former, may be benefited by phrenology, and in a variety of ways; but neither should attempt to infer character from actual development, unless perhaps in very rare, extraordinary cases. Still, it may in truth be said, that men are generally competent to appreciate and apply the truths of this philosophy, if they will but bestow on the subject a reasonable share of their time and attention. But do not imagine that the benefits of phrenology will be exclusively confined to them who may have the happiness to understand it. This would be a great error. It may shed rich blessings on millions, who may live and die without so much as even hearing the sound of its name. Not one in a hundred reads Locke; and not one in ten who does, can be said to understand him. Yet who will affirm that the world has not been benefited by the productions of that

great metaphysician? Has he not waked up in other minds burning thoughts which have been diffused far and wide, to the unspeakable comfort and edification of millions, who know not that such a person as Locke ever existed? The sciences of chemistry, mathematics, and medicine—to what a comparatively small number are they known! and yet how extensive their blessings! So of phrenology: its blessings can never be confined to those who know it. Like the benignant system of Christianity, phrenology may be of benefit to all men, and *especially* to them who know and believe its sublime discoveries.

ABOUT SMOKING AND DRINKING.

What is the real influence of wine and cigars, gin and tobacco, stimulants and narcotics, upon the brain? Do they give increased strength, greater lucidity of mind, and more continuous power? Do they weaken and cloud the intellect? Is a man's intellectual strength hindered or helped by their use? These are the questions to which a practical inquirer has been endeavouring to find some satisfactory answer. And he has evidently taken much trouble about his work. He has addressed his inquiries to men of letters, novelists, essayists, journalists, men of science, statesmen, in England, France, Germany, and America. Their replies he has embodied in a volume of 200 pages ("Study and Stimulants." By A. A. Reade. Published by A. Heywood & Son). Altogether, some 124 answers have been received to his appeal, and in many cases the writers have not only replied to the direct questions, "Do you smoke?" "Do you drink?" but have given many details of their every-day habits, which add much to the interest of the collection. Twenty-five use wine at dinner, thirty are abstainers from all alcoholic liquors, twenty-four use tobacco. Of these twenty-four, only twelve smoke while at work; Mr. Edison chews; and Darwin took snuff. One or two find alcohol "useful at a pinch." "Not one resorts to alcohol" for inspiration.

Mr. Gladstone "detests" smoking, though he finds wine is necessary to him at the time of greatest intellectual exertion. He drinks one or two glasses of claret at luncheon, the same at dinner, with the addition of a glass of light port. M. Jules Simon objects to smoking on the ground that it tends to separate men from the society of women. M. St. Hilaire thinks that in France no stimulants are needed. The Duke of Argyll has never touched tobacco, and only takes alcohol under medical advice. Sir John Lubbock considers the use

of tobacco in most cases prejudicial. Louis Blanc neither smoked nor drank, and so could not give an opinion. Of the scientific opinions, those of M. Paul Bert, given at some length, are, as usual with him, outspoken, trenchant, and to the point. "I never smoke," he says, "because I am not fond of tobacco. I take wine to all my meals because I like it." As with all other pleasures, it is a question of degree. Professor Tyndall thinks the man happiest who is able to dispense with the use of both. Sir Henry Thompson, in a speech at Exeter Hall, declared that brain-workers could not stand alcohol. Professor Huxley did not commence to smoke until he was forty years of age. Dr. W. B. Carpenter has never used tobacco, and has never felt the need of alcoholic stimulants.

Darwin used to drink a glass of wine daily. "I have," he adds, "taken snuff all my life, and regret that I ever acquired the habit. I feel sure that it is a great stimulus and aid in my work." He was accustomed to smoke two paper cigarettes of Turkish tobacco. "This rests me after I have been compelled to talk, with tired memory, more than anything else." Out of twenty men of science only two smoke. Professor Boyd Dawkins finds quinine the best stimulant. Edison invariably chews tobacco when at work, smoking he thinks too violent in its action. Night, he fancies, is the best time for intellectual work. To turn from men of science to men of letters, Mr. Matthew Arnold tells us that he has never smoked, and has always drunk wine—chiefly claret. As a general rule, he drinks water in the middle of the day. At a late dinner, "a glass or two of sherry, and some light claret mixed with water, seems to suit me very well." He comes to the very acceptable conclusion that, in general, "wine, used in moderation, adds to the agreeableness of life, for adults, at any rate, and whatever adds to the agreeableness of life adds to its resources and powers."

Mr. Freeman is candid enough in his reply. He tried once or twice when young to smoke, but "finding it nasty did not try again." Why people smoke he has no notion. As to alcohol he has no theories. He drinks wine like other people, and finds brandy an excellent medicine. "I have drunk beer and wine, as I have eaten beef and mutton, without theories one way or the other." Mr. Leckey is not a smoker. Mr. Ruskin is very emphatic. He abhors smoking for two reasons: a cigar or pipe often makes a man content to be idle; the excessive use of tobacco abroad, and the consequent spitting everywhere, and upon everything. Mr. Charles Reade sums up the matter in three curt but pithy sentences:

"I have seen many people the worse for tobacco. I have seen many people apparently none the worse for it. I never saw anybody perceptibly the better for it."

On the other hand, to Mr. Wilkie Collins, tobacco is his best friend. "When I read," he says, "attacks on smokers, I feel indebted to the writer. He adds largely to the relish of my cigar." Mr. Anthony Trollope, too, gives his testimony in favour of the weed, having been a smoker all his life. Mr. Thomas Hardy never smoked a pipeful in his life, and never found alcohol helpful in novel writing. Mr. James Payn is a constant smoker, and the guiltiest of his brethren. He smokes the whole time he is writing, three hours a-day, and after meals. Those who object to it he thinks have never tried it, or find that it disagrees with them. Kingsley was a great smoker. He used a long and clean clay pipe; when they accumulated they were sent back to be re-baked. Tourgenieff, the Russian novelist, neither smokes nor drinks.

Mark Twain began, according to his own account, to smoke immoderately when eight years old, allowing himself 100 cigars a-month, when twenty he smoked 200 a-month, and by the time he was thirty his monthly allowance was 300. For four months he works five hours a-day, and five days in the week, and smokes the whole time he is at work. Wine he finds to clog the pen, but two glasses of champagne are an admirable stimulant to the tongue. Mr. Frederick Harrison has never touched tobacco in his life. The Rev. Mark Pattison has been a smoker all his life. Of all people in the world one might fairly expect to find the traveller and the newspaper correspondent in the ranks of the smokers. Dr. W. H. Russell, for instance, has smoked and taken wine for years.

Mr. O'Donovan gives some very strong evidence in favour of stimulants, and draws a picture of his arrival in some wretched mud-built town, where he has lain down in some miserable hovel worn out with fatigue and anxiety. But the newspaper letter had to be written. It was then that he found stimulants gave him energy "to unpack his writing materials, lie on his face, and propped on both elbows to write for hours by the light of a smoky lamp." Mr. Henty finds it difficult to write without smoking. Mr. Sala has been a constant smoker for nearly forty years, but "as to smoking stupefying a man's faculties, or blunting his energy, that allegation I take to be mainly nonsense." He declares, however, that if he had to live his life over again he would never touch tobacco.

According to M. Taine, a cigarette is useful between two

ideas—when he has the first but not the second. Three-fourths of the men of letters of his acquaintance smoke, but none of them has recourse to alcohol. M. Taine declares that English journalists write their articles with the aid of a bottle of champagne. "With us," he adds, "the articles are written in the daytime. We have, therefore, no need to resort to this stimulant." It is sufficient to add that Mr. Read's conclusion is that alcohol and tobacco are of no value to a healthy student.

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

IV.—The Organ of Fighting.

This organ lies on both sides of the skull near the organ of friendship, but somewhat lower, or behind, and a little above the ear. It embraces therefore the *angulus mastoideus of the parietalia*.

Gall was long in the habit of collecting around him the boys playing in the streets of Vienna, and making them, by petty bribes, confess their own faults and betray those of their fellows. He then used to class his subjects together, the fighting, lazy, and roguish boys apart; and it was thus that he was led to assign an organ to an impulse whose reality will be readily acknowledged; though its description may not be easy. Gall first called this the organ of courage; but it intimates, in fact, merely that sort of bodily courage, that disregard and inattention to bodily pain and danger, which distinguishes the boxer, and which disposes a man to be a soldier. Gall's profession allowing him to go on in his examination among the lower classes of society, he declares, that his speculation has been confirmed by several hundreds of instances, in which the character of the individual was as certain as the organ was clearly ascertained. He then reversed the order of his inquiry, and examined the skulls of persons equally known for their want of courage, in whom he found the organ also to be wanting.

Gall exhibited the skulls of the same poet Alxinger and of the Austrian General Wurmser. The skull of the one was on this part quite flat, while a very marked swelling distinguished that of the General. It is needless to add, that Gall selected these specimens from the known character of the subjects.

Further, Gall asserts that a comparison with various animals confirms his opinion. This organ makes, he says, the

skull broad behind; it is a criterion of the spirit and courage of horses, dogs, &c. The bull-dog has a very broad head, the mastiff, on the contrary, not so much, also the little pug-dog has this breadth behind. The hyæna is very broad between the ears, the hare very narrow. In birds also the organ is found; in the robin red-breast and the Guinea hen. It is said that the Caribs try to flatten the head. Gall suggests that if this habit be really existing, it may have arisen from their having observed that their bravest warriors have a peculiarly broad skull behind; and wishing that their children may be like them, they try this experiment.

V.—The Organ of Slaughter.

Dr. Gall was led to the detection of this organ by observing the different structure of the head in carnivorous and granivorous animals. Draw a perpendicular line behind the *meatus auditorius* and you will find, that in granivorous animals, the whole of the brain, except that part of it which constitutes the organs of sexual love and the storge, falls before this line; and that on the contrary, in carnivorous animals, a great portion of the mass of the brain will be found behind this line. In men and in monkeys the *meatus auditorius* falls in the middle of the mass.

After making this observation, it was agreeable to the maxims of Dr. Gall's theory to infer, that that portion of the brain which is possessed by that class of animals, is the seat of the organ which gives the impulse whence the class is formed and named. In animals, at least, that thirst of blood which leads to slaughter, must have a physical cause, an organ or instrument through which it acts; and if it be in the economy of nature to furnish man with the various propensities of the animal world, at the same time that he is endowed with higher impulses which enable him by the act of his will to modify and govern those propensities, there will not be any thing to the considerate student of nature more offensive in the supposition of this organ than in that of any other. Thus much is said by way of anticipating the probable objection *à priori* to the notion of an organ of slaughter or blood.

This organ lies before and above the preceding organ of fighting, or above and somewhat behind the *meatus auditorius*, falling behind the line before mentioned; it appears double on the skull. It occupies that part of the parietal bone which lies immediately on and over the *margo temporalis*, and that district where this part of the parietal bone is united with the *pars squamosa* of the *os temporum*.

That man is an eater both of flesh and vegetables is known, and the position of his brain suits the rule laid down; the observation of a number of striking coincidences may justify the assuming a connection between the natural food taken by animals, and certain tendencies of character in men; and their being seated in one and the same organ.

It is notorious that individuals occasionally manifest a great delight in causing and in witnessing the violent death both of animals and men, which seems to suggest the existence of a *physical* impulse. Dr. Gall related a number of anecdotes (and every country has its own) of very strange propensities to blood, which, being unchecked by moral motives, may well lead to acts of cruelty and at length to murder. Connecting this fact with the observations just mentioned, and which the study of comparative anatomy had suggested to him, he proceeded to examine the skulls of persons who had betrayed those dispositions. From the Elector of Wirtemberg he obtained the skull of a murderer, in whom he found his expectation realised; and when at last the band of robbers and murderers who so long infested the left banks of the Rhine under *Schinderhanns*, were caught, and a number of them were executed, he found in the strikingly marked development of this organ in these banditti, a confirmation of his conjecture which was satisfactory to him.

Gall has further observed, that in those subjects, in whom this organ is prominent, the organ of good-nature is generally found very weak. Where the organ of slaughter is fully developed, and left as it were unbalanced by other organs, it may at length produce an impulse so strong as to be beyond the influence of voluntary power. Hence that blind rage of murder and destruction, which general history, as well as the annals of criminal courts, have made known to us, and which seems to be, in the wretched subjects of it, no less a diseased and insane impulse, than others less fatal to the peace of society.

VI.—The Organ of Address.

This organ lies before and above the organ of slaughter, about three fingers broad, just over the *meatus auditorius*, on the front lower angle (*angulus sphenoidalis*) of the parietalia, and appears also double on the skull.

It is found particularly in animals remarkable for their cunning and address in seizing their prey, in stealing, &c., particularly in the martin, tiger, panther, fox, cat, greyhound, and in some kinds of birds, &c. In men it is found in persons

of very different characters, though each of them have that whence the organ is here named. Gall's German word *schlauheit* generally means cunning; and he asserts its frequency in persons of a low, mean, tricking turn of mind, in priests who ingratiate themselves with the wealthy, in upstarts who have risen by their *savoir faire*. But not only these persons are marked by this organ: it is common to great politicians. Frederic the Second had it in an eminent degree. It is common to great actors, and seems to produce one of the great requisites for the stage. Gall found it in the greatest actor and actress of Berlin, Iffland and Madame Unzelmann.—*Jam satis!*

VII.—The Organ of Cupidity.

Such is the name which Gall has very recently given to an organ, which he formerly made known under the more offensive term *theft*. And this change of denomination is a specimen of that kind of improvement which must be made in the terminology of Gall's theory, should the general facts be ultimately acknowledged and wrought into a system.

This is the organ of address continued almost to the eyes, and is like that organ, double. It occupies that part of the *os frontis* which is found by the *linea semicircularis* towards the coronal suture.

If the organs of address and cupidity be both at the same time strongly developed, the head has a broad and, at the top, a flattened appearance.

The cupidity which is the result of the organ under observation, is, more particularly explained, the impulse privately and secretly to take away, and is occasionally found connected with no desire whatever to retain what has been so taken. Our books on psychology contain very curious cases of this propensity to steal, even in persons of rank and fortune, and the same thing is observed in animals. The jack-daw will not touch what you throw to him, but he will steal the same thing and hide it carefully, and then bring it again; it is the same thing with the raven, cat, monkey, &c. Here this impulse seems to arise from the pleasure felt in the exercise of address or cunning. This same passion was felt by Victor, the first King of Sardinia. Gall stated a variety of singular cases which may perhaps be matched by tales every where. He spoke of ladies who *longed* to steal, and whose desire it was absolutely necessary to gratify; and of an impulse to steal arising after a person had been trepanned; cases which seem to imply that some organ has been excited by disease or accident. The Kalmucks, he says, are in

general thieves. A young Kalmuck who was brought to St. Petersburg, and employed as attendant at the altar, and who had been impressed with religious fears, if not with religious principles, grew melancholy and languished with the *maladie du pays* (home-sickness). He avowed to his confessor, that he longed to steal, and that his religion would not suffer him. The priest, finding that he could not cure him of his desire, and that the boy was actually pining away, at length gave him permission to steal, upon condition, that within a given number of hours he should return the articles. In the evening the boy came back full of joy and gratitude, and brought the confessor his watch, which he had stolen from him while he was elevating the Host.

Gall asserts, that during his long experience, and that minute examination which he has made in prisons, houses of correction, &c., he has always found this organ marking determined and incorrigible thieves. The organ, he observes, he has found more strikingly marked in the thieves of Protestant countries, than in those among the Catholics, because there are among the one people fewer moral restraints from religion, &c., than the other; so that the prevalence of the vice requires a stronger natural impulse among Protestants than among Catholics. But it does not follow that the converse of the proposition is equally true, that wherever the organ is found in an eminent degree, there the habit and characters of stealing must also be found. It is only in extreme cases that the physical tendency is to be considered as too strong to be subdued by moral restraints. Only when it allies itself to cases of acknowledged partial insanity.

It has been objected, that the idea of property is purely artificial; and that therefore no act which respects it, can have a natural origin. But Gall contends that a vague sense of property at least is natural, on which the more complicated notion is engrafted, and cites well-known facts of natural history, to prove that it is common to the brute creation. Birds of passage, as well as those which have for a time been confined in a cage, return to their old nests; and the chamois will fight for its post on the mountain, which it keeps during the whole summer.

VIII.—The Organ of Good-nature.

This organ lies in the centre of the upper part of the forehead, between and above the *tubera frontalia*. It lies in the middle of the forehead, and though composed of two distinct organs, yet they, meeting, appear but as one.

The existence of this organ receives its strong confirmation from its undoubted reality in many quadrupeds. This first led Gall to seek, and at last find, it in the human race. Gall asserts, that there is a sure criterion of the temper of horses and cows, &c., in the form of their forehead. Wherever a broad protuberance is found in the middle, about the breadth of three fingers above the eyes, they will always be found gentle and good-natured; when, on the contrary, the forehead is marked by a sinking in, or depression, they are assuredly malicious, and must not be trusted. Many jockies and horse-dealers, says Gall, and particularly the French, have long known this; and it forms one of the circumstances to which they are particularly attentive. Other animals of the stag kind, on comparison, afford the same observation. The Austrian horses in general have this organ, and have also the character assigned to it. In the doe and the chamois this organ is not to be found, and the shyness of this latter animal is well known. Birds of prey, the vulture, the eagle, &c., have a sort of furrow, as if hollowed out, in this part. It is the same with beasts of prey, the hyena, crocodile, &c. This fact being established in the brute creation, the rule of analogy which Gall so readily follows led him *à priori* to determine, it must be verified also in man. And he asserts his expectations have been realised. The better busts of Nero, the impressions taken in gypsum of Robespierre's head, the general form of the forehead, and the character of the Caribs (whether we attribute or not any thing to the boards with which they are said to flatten the forehead is here immaterial); and a great number of particular observations, which of course are arguments only to the observer, and merely motives of examination to others, all concur to make Dr. Gall assign to the brain in this district an important function.

IX.—The Organ of Mimickry or Imitation.*

This is one of those organs concerning which, the reporter of Gall's doctrine feels himself embarrassed from the paucity of materials; to say nothing of the want of proof, the seat of the imagined organ itself is but vaguely given. Gall confessed he could persuade no one of the reality of it, of which

* The German word is *darstellung*, a term of frequent use in the theory of the fine arts, and a constant torment to the English reader from the want of an adequate word in his own language. It seems to correspond with *μimesis*, though not with our *imitation*, which renders the Greek imperfectly. *Darstellung* is used for the vivid and exact *description* or *representation* which the poet makes of nature and life.

however he was, from repeated observation, himself convinced.

This organ is to be inferred from a ball-like swelling of the uppermost part of the forehead, on each side of the centrally situated organs of *Good-nature* and *Theosophy* (to be hereafter described). Where this organ and also those of good-nature and theosophy are also developed, they would, together, form one beautiful swelling or vault of the fore part of the crown of the head.

The persons in whom Gall says he has strikingly observed this organ, are not merely great actors professionally, but also mimicks in private and low life, people, in whom mimicry has been a passion. Whether or not it is to be ascribed to monkies he seems to doubt.

X.—The Organ of Vain-glory or Vanity,

Lies on the parietal bone backwards. It appears double on each side of the organ of *Loftiness* (hereafter to be described), with which it is so nearly allied, that Gall seems to have subjected himself imprudently to unnecessary objections and reproaches, by asserting a distinction so little capable of being made even plausible. He is able to assert in support of it, nothing but certain observations which he says have been made not only in common life, but also in mad-houses, where he has at once by this sign discovered those who evinced a vain madness, thinking themselves kings, queens, &c. It appears double, from the intervention of the organ of loftiness. Persons having this organ have often the habit, so characteristic of an haughty man, of carrying their head aloft, inclined rather backwards. The Germans say of a proud man, "He carries his nose high."

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER XII.

THE FLAUTIST IN HIS TRUE COLOURS.

WHEN, as recorded in the previous chapter, Leitner tapped at Claus Bromm's door to inquire if any news was to hand of Fifine, Zerafine, who had just risen, answered the knock; and while he was speaking to her on the threshold—for he would not enter—Beauty brushed passed him, and sneaked into the house.

"So," said Zerafine, when Leitner had gone; "so you took advantage of last evening's trouble to stay out all night! Come hither, and give an account of yourself. Come, I say!"

Beauty had got behind the stove—his favourite place of refuge when storms were abroad or threatening—and was only persuaded to come forth by one of the little lady's meaning glances at the clothes-beater on the wall.

"Down, sir! None of your fawning and capering about me. A pretty thing for an honest dog to go galivanting about all night. And you have dared to come in with dirty feet, too! Can you tell me why I shall not take the beater to you? But no, good Beauty; perhaps you have been looking for your dear mistress, like the rest. Could you not find her, Beauty? Poor Fifine!"

So, in the general sorrow, Beauty was amnestied, and instead of the beater to his back, he got a cold frickadel for his tooth. Had Zerafine noticed the knowing eye Beauty cast on the dish whence the dainty morsel was taken, and which was left upon the table, she would have taken the precaution to replace it in the cupboard; but being sad and distraught, she did not notice the dog as much as she ought, or she would have seen that he was in no ordinary canine frame of mind. For although, when he had disposed of his toothsome morsel, he lay him down on the rug, and made as if for a nap, yet he kept his weather eye sufficiently open to be able to see through his eyelashes the one object whereon, for the time being, his soul doated—to wit, a lusty, lecker sausage, which kept company with the frickadels before-named. Not once did he move his winking eyelid from the dish; it was a feat of endurance, but he was equal to the occasion, and, as is generally, if not always the case, patience was at length rewarded; for Zerafine presently having occasion to step downstairs to see the Wirthin, she inadvertently left the door open and the coast clear; and when she returned, both Beauty and the sausage were gone. Zerafine, however, missed neither, being still preoccupied; she even put the dish away without noticing the theft—luckily for Beauty—because Wendel dropped in a minute later, and had she seen the dish she would have seen that the sausage was gone, as she had purchased it for Zerafine the evening before, and knew that it had not been touched, from having had occasion to go to the pantry. Hence the stars fought for Beauty, as they had beforetime done for Sisera.

The immediate occasion of Wendel's early appearance—apart from her desire to know the latest tidings—was that she had had a dream; and as she, like many others with more pretensions to education than herself, attached more importance to her dreams than to her waking thoughts, and placed more dependence on them, she had lost no time in coming to tell her dream. The good woman had dreamed that she saw Fifine locked up in the Cathedral; into which, she opined, she might have wandered, and then fallen asleep. Zerafine did not make much account of the dream, nevertheless she agreed to go with Wendel to see if there was anything in it—the dream, that is.

"You see," she said, as they crossed the square, "Nachbar Schaus says he saw her coming in the direction of the pump, and the church is only a step or two further."

It need hardly be said that they returned without the object of their mission.

"By-the-way," said Frau Grossbein, at Bromm's door, "what am I to do with this guest of yours? Shall I give him a cup of coffee and a roll and send him off? You will hardly want to be bothered with him in all your trouble."

"O, you had better send him down," replied Zerafine: "it's our calling, and we must not be disobliging to our clients."

"You need not trouble about obliging that article," said the other: "much good he'll do you!"

"O, he'll eat our food, and then turn our stomachs with his flute," said Zerafine, whose wit never needed a whetstone.

The flautist accordingly soon descended, flute in hand, after having vainly tried to strike up a friendship with little Fritz, who would none of him, although he blew himself empty in the hope of getting the boy to dance, metaphorically, to his piping. He had no sooner descended, than he was made aware of the sorrow that had befallen the home (for Wendel had not troubled to tell him). He essayed to condole with Bear and Zerafine, although he did not succeed very well; Bear was not in the humour for condolences, and Zerafine felt too much antipathy to him to care to disguise her contempt. It is given to some natures to have an instinctive insight into character, and in this respect Zerafine and Beauty seemed equally endowed. At any rate, both betrayed the same repugnance to the flautist. Beauty had snapped at his legs when he first made his acquaintance. If Zerafine did not show her dislike in the same way, she let him see, by her curt answers to his questions, that the best view of himself he could present to her would be that the Lord presented to Moses. Nor was she slow to tell him as much; for just then Beauty came in—very cautiously, by the way, and with a kind of deprecating air, as though he would say: "I know I have done wrong, but spare me the beating I deserve"—and, to conciliate Zerafine, began to caper about, with hollow back, and lowered tail; but, suddenly catching sight of Job, who was busy with his coffee and bread and butter in the corner by the stove, he immediately straightened his legs and back, stiffened his tail, and showed a set of threatening teeth, that made the blotched parchment visage of the stranger go ashy pale.

"Will he bite?" he cried, jumping upon his chair.

Beauty had nearly answered the question himself, for he made a charge at the musician's shanks, and only missed them by a hair's breadth, thanks to the flautist's acquired dexterity in avoiding canine teeth. Beauty would still have pursued him, charged his stronghold, and made short work of his tailoring, had not Zerafine taken him by the ears.

"I think he is dangerous; can't you lock him up?" said the musician, with one foot on the table, ready to make a still further retreat if necessary.

"There's nowhere to lock him up," said Zerafine. "You had better get away as quickly as you can; it always makes him savage to see strangers about."

"I'll go at once," he replied, taking up his hat and flute, and descending from his perch very gingerly. "Pray do not leave hold of him until I am down-stairs."

One would have said of a certainty that man had had a dog at his heels before now. When he had reached the bottom of the stairs, he quickened his footsteps, feeling sure that by this time the dog would be released, and, under his heightened apprehension, shot out of the door like a paper pellet from a boy's catapult. The combined effect of his overhaste and his blindness, brought him into violent collision with the Professor, who was at the very moment about entering after his fruitless search. As is usual in such cases, the weaker vessel suffered; for Claus, receiving the shock of the onfall against his left breast and shoulder, was wheeled round on his right foot, so as to describe a half-circle, being not otherwise incommoded, save by the loss of his hat; while the unlucky flautist, having little solidity, and—to use a fencer's term—but a poor grip of the ground, was spun round in the opposite direction with great violence, so that for a moment, and until he lost his equilibrium, he looked like nothing so much as a whirling dervish. When that point in his career arrived, the natural result followed—he fell, and there being no one at hand to check his descent, he came into violent impact with the ground. Several persons witnessed the accident, among the number Wirth Nussbaum, who, though he laughed heartily at the mishap, hastened to pick up the sufferer.

"It has given you a pretty colour," he said with a laugh, seeing that the blood had spirted from his nose over his face, and nothing loth to take a little fun out of the fellow in payment for the disturbance of the previous night; for he quickly recognized the peace-breaker. Nevertheless, he invited him to enter and wash his face and hands—an invitation he accepted with alacrity, when he had done spitting out the dirt from his mouth, and the ill-temper from his heart, in the shape of curses. Fortunately the latter were uttered in his mother-tongue (if that which utters curses can properly be called a mother-tongue), and were therefore not understood, not even by the Professor, who, as already stated, understood very little spoken English, and when he did attempt a phrase in that language, generally brought it out with a quaint Shakespearian idiom that sounded oddly enough to those to whom a later and more slangily-spiced diction only was familiar.

When the flautist had washed his face, and made it as clean as it was in its nature to be, and had dried away the tears that flowed after his bleeding nose had been staunchd (for the well-springs of his tears appeared never to be exhausted), and he had explained to Claus the cause of his precipitate flight, the worthy Professor begged him to re-ascend and compose at once his feelings and his bruised anatomy; for he was loth to let even a beggar leave his roof otherwise than in a mood to bless.

As they mounted the stairs, Zerafine was narrating to Bear how the flautist had been got rid of, and had got upon the chair the

better to act the thing out, when the door opened, and Claus entered, followed by the itinerant musician, who took care to keep close behind his protector, and to make use of his body as a shield or stalking-horse. There was no need for the precaution, however, for Beauty no sooner caught sight of the Professor, than he dropped his tail, and slunk behind the stove, being quite well aware that his and Zerafine's ideas of justice would not square with his master's.

"What is this I hear about your bad behaviour?" asked Claus.

"Oh, you must not be too cross with him to-day!" said Zerafine; "he is evidently tired and put out at not being able to find Fifine."

"Fifine!" chimed in the stroller; "is that the name of the young lady, your daughter, whom you have lost?"

"Yes," replied the Professor. Then, addressing Zerafine, he asked: "Has he been out looking for her?"

"Certainly; he came in with his feet all wet," returned Zerafine.

"In that case we must forgive him this time," said the Professor.

The old man now answered the query which had been all the while on Bear's tongue and in her eye; namely, whether he had seen or heard anything of their lost treasure. He had neither done the one nor the other. As he gave this information, he went to the window and gazed disconsolately out on the great square. After remaining a little while in this attitude, absorbed in thought, he turned to the flautist and bade him rest himself till he returned; then, taking Bear by the hand, he said—

"There is one thing I have omitted to do; it won't take me long."

"Won't you take something to eat first?" asked Bear, with an imploring look into his sad face.

He answered, "When I return," and was about to go when the musician begged, in return for the kindness shown to him, to be allowed to assist in the search; but the Professor preferred to go alone, and told his new protégé so.

"Can I be of assistance to you in any other way?" he then asked. You have been a benefactor to me, and I would gladly return your kindness in some way."

"No; I can attend to nothing until I have found my child," said Claus, opening the door.

"It shows the greatness of your soul, Sir," replied the flautist, "to take so deep an interest in one who is only your daughter by adoption."

"Do you then take me for one of those who measure their interest by degree of consanguinity, and bestow kindness only on their kin?" replied the Professor, with something like asperity in his tone.

"The poor child has awakened our interest, and called forth our affection so much because of her misfortunes," said Frau Bromm.

"Indeed, Madam!" replied the flautist. "And you say she is very beautiful?"

"No more beautiful than she is good," returned Zerafine, who entered as the Professor went out.

"She must then be worthy of affection. May I ask in what respect she was unfortunate?"

"She was unfortunate in marrying," replied Bear.

"In marrying a low, good-for-nothing vagabond who, if he had his deserts, would be hung up for the crows and kites to peck at," added the downright Zerafine.

"Really!" exclaimed the musician, with a mixed note of exclamation and interrogation in his voice.

"He must be one of the vilest of the vile," said Bear, quietly.

"Poor lady!" sighed the flautist.

Bear sighed too, and quietly wiped a tear.

"I think you said her name was Fifine?" said the flautist.

"Yes, Fifine Undine," answered Zerafine; "and the poor thing has a scoundrel of a husband knocking about the world somewhere—one whom, should you meet and belabour with your flute until he howled for mercy, you would be making music that would do all honest souls good, besides paying off a little of the score there is against him, and earning the thanks of all good men and angels!"

"If I fall in with him," said the flautist, with some stammering and hesitation, "I will—I will let you know."

"Oh, you need not do that," replied Zerafine; "one meets with knaves enough, and prowling scoundrels enough, without wishing to see the archest villain of them all. It is bad enough to know that such a wretch exists, and that he has not sooner fallen into the hands of the evil one."

The strolling player was made uncomfortable by what he heard—directed as it was half against himself—and proposed again to go in search of the young lady. He thought he should know her if he saw her, from their description. He seemed quite anxious to go, and the women being nothing loth, he rose to take his departure, and had reached the door, when quite as sudden a resolution to stay possessed him. He thought, he said, he had better stay till the Professor returned; he probably would not be long, and he might have some plans whereby they might work together for the common end of finding the young lady. Bear was agreeable, and though Zerafine was not, and indeed if she could have had her own way, would have put Beauty to watch him, yet she acquiesced with the best grace she could, and went about her work in the kitchen, where Bear soon joined her.

Presently they heard the musician blowing a low melancholy tune out of his flute; it was like the wail of ghosts flying—as we are told by Procopius they did—from the shores of Brittany to ancient Armorica; "it was the tune the old cow died of," said Zerafine. Bear opined it was a religious air; to which Zerafine replied that certainly all the religion he had was most probably in the air.

"He seems to be walking up and down the room," said Bear.

"He is rehearsing for the street to-night," said Zerafine.

Just then he blew several horribly discordant notes, that made Zerafine set her teeth. The little woman was all nerve, and a harsh note was like the prod of a needle to her.

"A man who can make such a discord can commit murder," she cried.

"That's rather severe, is it not?" said Bear.

"Not at all," replied the other; "I think I would rather have all the Egyptian plagues in the house than that man. You see! Beauty feels it too."

Beauty growled in his sleep.

The flautist now ceased playing, and presently opened the door, but only wide enough to get his head through. His eyes wandered in search of the dog.

"I think I will not wait any longer," he said; "but I will be back again soon. Will you tell the Professor so? Is the dog safe? Auf wiedersehen."

He had no sooner got outside, than Zerafine went into the room where he had been; she "hardly knew why," she said afterwards. Presently she came running out again with the exclamation—

"He has taken Fifine's necklace!"

It had been lying on a small whatnot in the corner by the door, where it had been placed by Fifine herself, the day before—a circumstance which, to Claus Bromm's mind, showed that her flight had not been premeditated, because she set great store by this knickknack. Bear ran to verify Zerafine's report with her own eyes, and having done so, both women ran to the top of the stairs to give the alarm.

The petty filcher was near the bottom, going as quickly as he could. Zerafine pursued him with voice and heels. Wirth Nussbaum, who happened to be at his door, heard the clamour, and his burly form appeared at the entrance, nearly blocking it up, just as the thief reached the foot of the stairs. As quick as thought, he threw something behind him, and made a dart at the doorway, at the same time stooping to pass under the good Wirth's arm. The latter was too quick for him, however; his big hand closed upon Job's neck like a rat-trap; and when he held him up to get the light on his face, his eyes protruded like a strangled rabbit's.

"What has he done?" asked Nussbaum, addressing Bear, who had nearly reached the bottom of the stairs, and Zerafine, who was looking about on the lower steps.

"He has stolen something," said Bear.

"A necklace," added Zerafine: "here it is!" suddenly darting at a black object, and holding it up.

"I did not take it," whined the man.

"I saw you throw it down," said Zerafine.

"It must have clung to my sleeve," he said.

"Clung to your sleeve!" exclaimed the indignant Gastwirth. "Such things always will be clinging to the clothes of such as you, and getting you into trouble. They ought to know better, but they don't. However, you will have to suffer, as such innocent people generally do. Hans!" he cried to his head waiter, who had come out to see what was the matter, "call a policeman."

"Pray don't," cried Frau Bromm, interposing; "let him go!"

"Get you gone then!" cried the innkeeper, releasing him; "and mind you don't show your nose about here again, or it may be worse for you."

The flautist did not wait to hear this warning out, but skipped across the street, and along Langenstrasse, as though the devil or Dr. Faustus were at his heels.

CHAPTER XIII.

WEIGHING THE PROBABILITIES.

When Claus returned, which was not until the afternoon was somewhat advanced, he was ready to drop with fatigue and sickness of heart. Bear prevailed on him to take some refreshment, and he was still busy sipping his coffee when he noticed the absence of the flautist, and asked where he was. Bear said that he had gone. Claus made no reply, but presently, as his restless eye wandered about the room, it lighted upon the whatnot, where the necklace had hung, and he asked what had become of it.

"I put it away in the drawer for safety," replied Bear, anxious to spare him any further cause of annoyance.

"Is there anything wrong?" he asked, noticing a certain restraint in the manner of his wife and Zerafine.

They could not say there was not, and were therefore obliged to tell him the story of the flautist's roguery, capture, and final manumission. He heard it out, not without marks of astonishment, and then said quietly—

"I shall begin soon to lose faith in human nature, and harden my heart against it."

"No, you won't," replied Bear; "you know you can never do that."

"I think it would be a good thing if he would harden his heart just a little," said Zerafine. "I don't believe in people being too soft in that part; if they are, it is sure to be used like a pincushion, and stuck over with everybody's little pains."

"Better that than harden it against all," replied Bear.

"One's faith in human nature certainly does not strengthen by lengthened acquaintance," said the Professor disconsolately. "I'm afraid roguishness is ingrained in all."

"If you feel so desperate about human nature, what will you say about dog-nature, when you hear that Beauty has gone astray?" said Zerafine, willing to cause him some distraction. "I really think some evil influence has befallen the house since last night; a baleful star has passed over it, or else some one has brought bad luck into it. I should not wonder if it was that piping thief. One should have holy water sprinkled over the place, or else get a lucky man to come in and take salt with us. If something of the kind be not done, we shall have one misfortune after another befall us."

"What other misfortune has happened?" asked the Professor.

"Beauty has stolen the Gudinger wurst that was intended for your supper," replied Bear.

"Is that all?" said Claus; "I dare say he has more need of it than I shall have, and he is welcome to it."

"But," replied Zerafine, "think of the cunning of the rogue; he lay there by the stove pretending to be asleep—evidently, however, with one eye all the time on the sausage—and no sooner was my back turned, than the sly thing up and sneaked off with it; though how he could get away with it without either me or Wendel seeing him I don't know, for we were both on the stairs at the time; he must have hidden in Nussbaum's door until the way was clear. When he came back again he was looking as innocent as a lamb, and snapped at the piper's heels as righteously as you please."

"Poor fellow!" cried Claus, "I wonder where he has gone to!"

"O, he's not far off; he was here a few minutes ago," replied Zerafine.

"I mean the musician; not the dog."

"O!" exclaimed Zerafine, making a very large "O" of it; "we don't know. Shall I go and inquire?"

The Professor could not help smiling, in spite of all his trouble; but changing his smile into a look of ineffable sadness, and patting the pert Zerafine on the head, he said—

"I wish thou could'st inquire out the whereabouts of our poor Undine."

"I wish I could find her," replied Zerafine, looking up into the Professor's face through a couple of large tears. "But take comfort; I believe she will either return, or she will let us know what has become of her."

Bear asked her why she thought so; to which Zerafine replied, because she felt sure that Fifine would not again be tempted to destroy herself, and while she lived she would remember her happiness while under their roof.

"But suppose," said the Professor, "as Bleichroder thinks not unlikely, that she suddenly lost her reason, which may have been weakened by her sufferings—and you know she never lost a certain half unsettled, half-anxious look—and in that state threw herself into the river?"

Neither Bear nor Zerafine had thought of this possibility before, and it filled them with consternation, and seemed to take away the last bit of hope from their hearts. Zerafine was generally all "up" or "down," as she expressed her variable mood; although, it must be confessed, there was more of the "up" than the "down" about it.

Early in the evening Bleichroder called. He had not learned about his friend's trouble until that morning, when Claus had dropped in as he passed and told him about Fifine's disappearance, asking his advice. Bleichroder was at the time just going to visit a patient who was in a dangerous state, and could, therefore, only spare two minutes to talk to him. As we have seen, he gave it as his opinion

that the young lady might have lost her wits, and done away with herself. Although he did not exactly believe such to be the case, he advanced the notion as a feasible explanation of the mystery, and the one which, in the circumstances, seemed the most likely to appease the sharpness of his friend's grief.

In his own mind, the explanation which most commended itself to the Doctor was, that Fifine, with that perversity for which the sex is remarkable, had gone back to her old life, having tired of the humdrum existence she had led with the Bromms, which was such a change from that to which she had been accustomed, semi-public as it was; and, if uncertain, yet not unpleasing to a certain class of minds, to whom the ups and downs of an adventurous life are more agreeable than a quiet and uneventful existence.

"It is possible," he said to Claus, "that she has gone back to her husband, scamp as she represents him to be, and doubtless is."

The Professor shook his head. He would believe anything of his darling rather than that. She might have gone mad, and stronger minds than hers had given way under less strain than that to which she had been subjected; she might even have committed suicide in a fit of melancholy, and there were susceptible natures which were particularly prone to yield to that end-all of care; or she might have been decoyed away to some worse evil—which heaven forbid!—but that she had gone back to the life that would be hers if in her husband's power, that he would never believe.

"Well," said Bleichroder, "I do not want to believe evil of the girl; she was one of the fairest of Eve's daughters, and, it always seemed to me, one of the most sensible; but what can you think of a disappearance so sudden and so inexplicable? I was beginning to think there was something hopeful in womankind, so admirable in all respects did she appear; and would fain believe she had done nothing to discredit that opinion. Nay!" added the Doctor, with some warmth, "I would give half I possess to see her back again in her old place by the window, with her painting utensils by her side, and that quiet smile of hers on her face!"

"Ah, what a smile that was!" exclaimed Claus, with misty eyes; "it had more pleasure in it than a king's welcome—more promise than St. Peter's keys!"

Bleichroder smoked for some time very meditatively; he was going over the whole problem again, for he was in the habit of looking at every question as he would at a proposition in Euclid, or at a syllogism in logic: given such and such an act, with such and such operating influences, and you might infer the motive. But then, man was a being of such complex motives, and woman one of motives still more complex. Yet the dominating powers in woman were fewer than in man—vanity, ambition, love, duty, avarice, revenge, devotion, gratitude. In Fifine's case it was most conceivable that love, duty, or gratitude would control; but duty would hardly be likely to make her sacrifice herself to her husband, and gratitude would surely attach her to her parents by adoption; it

must be love then, or its opposite, hate, that had been the moving power in Fifine's flight—if flight it was—and if she had had any will in it. Having come to this conclusion, the Doctor formed the opinion that there was some fact connected with Undine's disappearance which had escaped their observation, and which, if known, would make the whole affair as plain as noonday. He murmured his thought half audibly, as habitual thinkers are wont to do, and Claus, thinking the Doctor was addressing him, apologized for his inattention.

"I was just thinking," replied Bleichroder, "that if we all knew the facts of the case, the explanation would appear as simple as A B C."

"Truly," said the Professor, not fully comprehending the Doctor's meaning. "There are many circumstances connected with Fifine's past that need to be known and understood before her actions can be explained. Without a knowledge of those circumstances, her acts appear wayward and inconsequent; but when all the circumstances are known—as she enabled us gradually to know them—we come to see what a noble soul it was struggling against the most evil surroundings. Poor Undine!"

Then, after a pause, the Professor continued—

"There were some circumstances connected with her past life which we intended to keep to ourselves, but as they may help to unravel the mystery by which her disappearance is surrounded, you may as well know them. She was an orphan from her birth, the more orphaned because not yet parentless. She has had the world for step-mother and step-father, both, and step-parently it has treated her. It gave her a husband who was a step beneath the brutes; who thought by marrying her to have stepped into an idle life and an income; and who, disappointed of that, would have steeped her in a double death in order that he might live."

"Divested of metaphor," said Bleichroder, "your speech means"—

"That her fiend of a husband would have sold her beauty for his breakfast, and her soul and body's health for his supper; that he would have feasted on her flesh as the ghoul on the offal of the graveyard; that he would have enriched his foul body by the pauperising of her spirit. What would you do with such a creature?"

"I would do with him as they did with the lepers of old—see that he was so isolated that he could do no harm to anybody," replied the Doctor.

Claus and Bleichroder were presently joined by the Wirth and Leitner. The latter had been round privately to the chief police stations of the city; in the first place to elicit information, if there was any to be had; and in the second, to see if the police had any suggestions to make. He found that Claus had been to all of them, either during the night or in the morning (as well as himself and Nussbaum), and that the account he had given of Fifine's antecedents, and of the way in which he had first made her acquaintance,

had not prepossessed them in her favour. They were of opinion that she had left the city—probably gone back to her old life.

"A woman who had once dressed herself *en homme*, would do it again," said the chief of police. Leitner's objection that Fifine had had no chance of doing such a thing, had no weight with him. "You don't know what chances such people have; their ways are not your ways nor my ways," he said. "One of the greatest mistakes people make is to suppose that the ways and motives of different strata of society are the same. There is as much difference betwixt them as betwixt different kinds of animals; and you cannot get an individual of the criminal class to act like one of a higher type, any more than you can get a cat, for instance, to act like a dog."

In the end Leitner came away convinced that no assistance was to be expected from the police. He was not without a suspicion, too, of the real truth of the matter—namely, that the myrmidons of the criminal law are out of their element in cases not concerned with actual crime, and that their only way of accounting for an action like that of Fifine's (for they considered that she must be a party to whatever had occurred), is the hypothesis that there is a hidden, if not an apparent, criminal motive.

Bleichroder agreed with the chief of police in regard to his classification of society. He said—

"You have only to mix with the criminal class, as I have done in London and New York, and other large cities, to see that they live in quite a different strata of the brain to other people. A confirmed criminal never becomes anything else, whatever others may do who are only partially criminal. But he (the chief of police) shows the bias of his occupation when he says that a departure from the recognized conventional method of acting in society can only take place under a criminal motive."

The Professor now recollected that at each police-station they had asked him if Fifine had taken anything with her, and seemed to think he was screening her, when he said she had not.

"It is plain that nothing is to be expected on the part of the police," said the Wirth.

"That is all the more reason why we should be bestirring ourselves," replied Claus, rising and announcing his intention to prosecute the search.

CHAPTER XIV.

A CONSPIRACY.

When, released from Nussbaum's clutches, the flautist had run until out of breath, he turned into a low out-of-the-way Kneipe. It was a dark, dingy place, and at first he could make out nothing very distinctly, except the ill-favoured tavern-keeper and his still more unprepossessing wife. He ordered some beer, and ensconced himself in one of the darkest unoccupied nooks to drink it. Presently he perceived in the very darkest corner, over against him, a silent, pre-

occupied man, or shadow of a man. After examining him carefully for some minutes, our friend of the purloined necklace went over to him, and claimed acquaintance. The stranger seemed at first incredulous, but the other was able to recall circumstances to his memory which evidently removed all doubts, for his face suddenly brightened, and the two were presently in deep and earnest confab about old times. Their several reminiscences took a long time to tell, and they had frequently to replenish their glasses because of the thirst engendered by the labour of their tongues; the consequence of which was, as not unfrequently happens, that they became highly elated, although not absolutely drunk. Of the two the flautist was the "forwarder," and he was in consequence the more inclined to give and seek confidences. The stranger, who was known to the myrmidons of the law to be Rudolf Raubvogel, but as preferring sometimes to go by other names, seemed to see the inconvenience of indulging in confidential talk in a public room, especially with a person in a state of semi-intoxication; he, therefore suggested that they should adjourn to his lodgings. The flautist agreed, and the two accordingly sallied forth. A walk of a few minutes, by dark and tortuous streets, brought them to the corner of the Domplatz, opposite the Gute Prediger. The musician—or Goldwhistle, as his new-found companion called him—had not noticed whither they were going, until he suddenly found himself close to the scene of his discomfiture of a few hours ago. "Where are we?" he asked, looking about him. "Isn't that the verfluchtete Prediger?"

"Yes," replied his companion. "Don't you like the house?"

"No; I've a grudge against it—shall pull that preacher down one of these days."

"Well, come in now; this is my lodging," said Raubvogel, turning into the corner house. It was a low building of three storeys only, and the garret, that Raubvogel at present called his home, was a low, dingy little room. A bed, a table, two or three chairs, and a few rickety etceteras, constituted the whole of the furniture of his lodging. Goldwhistle now became as depressed as he had been erewhile elated; he hung his head like a sick fowl. He was clearly besotted; and on the Raubvogel's suggesting that he should turn down and have a nap, he staggered across the room, and threw himself in a heap upon the bed, as only a drunken man can. He slept for full two hours; the Raubvogel sitting the while over the stove, hugging his knees, which was his favourite position, winking and blinking at the light it shed like an owl.

When his companion awoke, he prepared some coffee, and brought out some rolls and butter, and the pair of them fared sumptuously. His nap, the warm room, the coffee, and the food, all conspired to put the knight of the nimble finger in a good humour, with himself at any rate, and he at once began to lay his plans for the future before his ancient friend and confederate.

While the coffee was making, he had made a close survey of the apartment, not only in regard to its internal accommodation, and

means of egress, but also in regard to its outlook streetwards. The house was one of two gables; one, high and pointed, towards the Domplatz; the other, low and narrow, towards the Langenstrasse. The room occupied by the two worthies was in the smaller gable, and one narrow slit of a window looked upon the roof, the other, not much larger, fronted the street. Goldwhistle had quickly perceived that the lesser window commanded a capital view of the Prediger House, and the discovery seemed to give him particular pleasure, for he rubbed his hands, and smiled—if that motion of the mouth can be called a smile which parts the lips, and displays a series of black gaps and discoloured teeth, such as can hardly help suggesting a charnel house to the beholder.

By the time they had finished their meal, the strolling player had fully matured his plans, and he at once began to put them into execution by proposing to Raubvogel to share his lodging. The latter was nothing loth, and a bargain was at once struck.

"Now," said Goldwhistle, when the thing was settled, "I will tell you why I want to lodge here, and I can promise you, if you are willing to work with me, that I have got a little scheme on hand that will set us both on our feet."

The Raubvogel was willing to go in for anything which would put him on his feet (he had, been crawling hitherto all his life), and he signified as much.

"I cannot tell you every detail of my scheme," said his companion, "those you will learn gradually, as they develop themselves; for the present it will be sufficient to explain that the success of my plan depends on our keeping a good watch on the Prediger House. We can do it from this window without being seen, and that is important," he said, stepping to the lesser light.

"Halloa! what is that?" he suddenly exclaimed in astonishment, "a light!"

"Where?" asked Raubvogel.

"In the window there, right up in the roof."

"Yes, there's a light there, sure enough," replied the other; "what of that?"

"I'll tell you presently," said Goldwhistle, "watching the light intently. That strengthens my conviction that there is *bonne fortune* in that house for us."

Raubvogel shaded his eyes from the light, and blinked confusedly at his companion.

"This is a riddle to you, is it not?" said Goldwhistle. "But listen. Yesterday I made the acquaintance of someone in that house—how, does not matter at present; to-day, I was ignominiously put out of the door—I may say thrown out—and by whom?" he exclaimed, in his best theatrical manner, having now risen and taken the middle of the room, "By that beast of an innkeeper! I am not of a revengeful disposition, by any means," he continued, "but I hope to pay that wretch out, and soon too. That, however, is a secondary matter. The important thing is this: while I was in the

house I found that a young lady had been missed; she had run away indeed. Now a great deal depends on her being found; there's money in it; you may not think it, but there is; and our cue is to be on the look out for her, about the town, everywhere, but particularly to see if she comes about the house, as I expect she will."

"What's she like?" asked the Raubvogel, winking and blinking in the candle-light more than ever.

"Oh, she's very beautiful," replied the other; "big blue eyes, yellow hair, rather pale face, thin, medium size, English."

"Yes!"

"I'll watch the house during the day, and you must watch it at night, when I am out on business; and when we are out of doors we must always be on the alert. It will pay us, I can tell you!"

"How?" asked the blinker.

"Oh, leave that to me," replied Goldwhistle, "and you will see. But that is not all," he continued.

"No!"

"No," echoed the flautist. "I do not go about with my eyes shut, and so if there is anything to be learned, I learn it. Well, last night I slept over there, in a room just below where the light is. During the night I heard a noise in the garret above me, and when I asked the woman in whose room I slept what caused it, she said it must be the ghost, for the garret was haunted, and that no living soul had dared to enter it for I don't know how long!"

"Lord!" exclaimed the Raubvogel, "I shouldn't wonder! I've known many haunted houses in my time."

"Well, you know, I don't believe in ghosts," said Goldwhistle, putting his thumbs in the arm-holes of his waistcoat, and posing dramatically.

"Neither do I, as a rule," replied Raubvogel, blinking portentously.

"When I heard the story of the ghost, I put two and two together," continued the player. "I said to myself, there's never a ghost in a garret for nothing. I knew a house in London," he said, coming closer to Raubvogel, and looking down upon him much as a stork would look upon a frog he was going to gobble, "that was haunted—by counterfeiterers; and no one found it out until they had carried on their trade for a couple of years. That's the use of a haunted house. A pretty ghost it is that is over there!"

This was said with a chuckle, and a backward motion of the thumb in the direction of the Prediger House.

"Mein Gott! do you think that?" exclaimed the Raubvogel.

"That I do!"

"And who do you suspect?" inquired Raubvogel, under his breath.

"You know," said Goldwhistle, blowing out his cheeks, and indicating a wide girth by a motion of his hands.

"So!" exclaimed Raubvogel.

"Yes," assented the other; "and that light confirms me in my belief."

"What shall you do?" asked Raubvogel.

"I have not quite decided yet; it requires caution; but I shall make sure, and then—if I do not shake nuts out of the old tree!"

Goldwhistle accompanied his sentence with an action suggestive of shaking a tree, and protecting his face from the falling fruit; which made his companion laugh and rub his hands. It was like a dog licking his chops on hearing the carving-knife being sharpened.

When the two worthies finally disposed themselves for sleep, they had pretty well matured their plans. They had decided, for one thing, to watch their chance to steal up to the garret of the Prediger House, and spy into its secrets. Goldwhistle was certain he should find confederates of the Gastwirth at work at some nefarious trade, possibly making counterfeit coin. He fell asleep, turning over in his mind how best to go to work, and, naturally, dreamed of finding out the secret, and profiting by the discovery.

In the morning their plans were again discussed and details arranged. It was decided that Goldwhistle should take his post at the little window and keep a strict outlook on the Prediger-House until night; that they should then watch for a convenient opportunity to enter the house and steal up to the garret. Meanwhile, as it might not be expedient for the flautist to be seen by Nussbaum, Raubvogel was to go out, and buy him the materials for a disguise, in the art of which he was well-schooled. Accordingly, breakfast over, the eminent pseudo-philanthropist and philosopher, sometime play-actor and music-hall songster, meanwhile street musician and scamp, established himself at his observatory, and kept his eyes, like a couple of hostile guns, on the citadel of the Good Preacher, while his friend and associate sallied forth, blinking, to do the will of his leader. His business took him a long time, for Raubvogel was naturally a bird of the night, and was ill at ease in the broad day. There were physical as well as moral reasons for this peculiarity; for such was the constitution of his visual organs, that he became almost blind when the sun was at its meridian splendour, and only began to recover sight as the day declined. With twilight he saw well, but his sight was best under the pale shimmer of the moon and stars. His eyes were of a pale, pinky hue; and he looked at you from under straw-coloured brows, although never steadily, but with winking intermittent glances.

There was evidently something left out in Raubvogel's composition. It may have been a lack of iron, or whatever constitutes the chief element of strength in the human organism; or the elements may not have been kneaded together sufficiently; or his constitution may not have been magnetic enough to render it polar to the society to which he belonged; or it may be that he had, as some averred, only half a soul. Be the lack what it may, there certainly was something wanting to complete him. Who was to blame for the short-coming, let the theologian and the physiologist decide between them.

In consequence of his infirmities, therefore, the Raubvogel could

only proceed by the darkest streets and bye-ways; hence he often had to make the longest possible detours to reach the place he wanted, and was, in consequence, treble the time one not handicapped by his owl-like peculiarities would have taken to transact the same amount of business. When he returned, the afternoon was already advanced, and he came without some of the things for which he had gone out, chief of which was a hirsute disguise for his face. Goldwhistle growled at this loss of a day, or rather a night; but there was no help for it.

The next day Raubvogel succeeded better, and added to the material for the flautist's make-up, false whiskers and a low-crowned hat. Everything needful being thus at hand, the actor and knight of the nimble fingers presently adjusted them to his person, making himself look a Guy Fawkes that had escaped hanging. In his new character he strutted about the room, like a boy with a new coat anxious to be out; he felt that he could even walk up to the Gast-wirth in his new disguise, and have no fear—for, lynx-eyed as he was, he thought he would fail to see the old ass's head under the lion's mane. There is something in a fresh suit of clothes that makes a man, for the time being, feel like a new creature; as though, with the worn-out wrappings, he had cast off something of his old self, as the serpent its slough, and was beginning anew, with fresh hopes, fresh courage, and a clearer moral purpose. I do not know whether Teufelsdröck has noticed this peculiarity in his "Philosophy of Clothes;" if not, it is a point worthy the attention of the future editor of his lucubrations.

The night, however, passed without anything being attempted because of the number of people who were going in and out of the Prediger House all the evening up to midnight. The next day was likewise a *dies non*, for the reason that Goldwhistle had the misfortune to get drunk, and so to disqualify himself for his high emprise.

"To-morrow, however, shall make up for all," said the flautist, talking the matter over with the Owl, "and five is a lucky number."

(*To be continued.*)

Facts and Gossip.

THE *Liverpool Mercury* of August 13, contains the following:—"Mr. Frederick Bridges, who had been a resident of Liverpool for upwards of forty years, died at his house, Mount Pleasant, yesterday, having reached the age of seventy-three. An earnest student of the phrenological system, he was regarded by its adherents as an able exponent of its principles. He enjoyed a large practice as a 'reader of heads,' and several of his written delineations of the characteristics of celebrated men were of a singularly interesting nature, while his analysis of the mental composition of notorious criminals were often equally striking."

MR. FOWLER writes:—"During the early part of his phrenological career, Mr. Bridges travelled extensively in Western America to make observations among the different tribes of Indians. I first knew him in America over forty years ago. He had a rare faculty to acquire knowledge by observation, and knew how to make the most of what knowledge he gained. His perceptive intellect and his powers of analysis were very good. He had strong feelings and impulses which, when younger, were an impediment to consecutive thought or close application to study. His best gifts as a phrenologist were his ability to read character, and give advice to the young. He took a lively interest in the right education of the young, and wrote considerably on that subject. His writings were all of a practical character."

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

E. L. (Nottingham).—You are naturally strong in body, and vigorous in mind. Are in your element when vigorously occupied; are full of animal life and spirits, and appear to come from a long-lived ancestry. Are very capable of enjoying yourself as you go along. You have practical talents; are easily posted up in what is going on in society; the news comes to your house sooner than to your neighbours'. You have good business capacities, or could teach; are quite ambitious to excel, and be a favourite. Are decidedly social and affectionate, and are magnetic in your influence over others. Are capable of making your own home happy and attractive.

E. A. L. (Nottingham).—You improve on acquaintance; make but few, if any, enemies; are earnest and whole-souled; and very warm-hearted, affectionate, and social. Are favourably adapted to all that belongs to married life. You meet your friends more than half way, and give them the best. Have good knowing, perceptive powers, and are alive to what is going on around you, and well qualified to entertain company. Are quite firm in your principles, and conscientious in what you say and do. You are greatly in sympathy with others, and do not want to live alone or be a nun.

T. H. R. (Belfast).—You have a strong social nature, are fond of company; quite ardent and earnest; decidedly ambitious; and anxious to please and be popular. You have full enough imagination, especially for a business man. Have talents for a writer and speaker, are quite original, and have plenty of ideas, but might be

more practical and scientific. Are rather witty and versatile, and easy in manner; are full of sympathy, and easily interested in others.

M. M. (Leeds).—Your head being unusually high and narrow indicates that you are mild, amiable, open-hearted, and confiding almost to a fault. You are very aspiring, and your standard is high. You place a high value on yourself, and are more womanly and dignified than familiar. Are firm, rather positive, and distinct in character. Are full of hope and strong expectations as to the future. You also have strong faith in Divine influence. Your mind alternates between the affections, which are strong, and your strong intellectual reflective mind. You could sustain yourself in some intellectual or moral pursuit.

E. B. (Banbury).—You have a high degree of the mental and motive temperaments; are sharp and quick in all your mental operations, and very earnest and intense in your feeling. You have an aspiring mind, are positive and distinct in character, and have more than average intellect and ability. Will be more forcible than copious as a speaker, but very energetic, and capable of making your mark as a lawyer or legislator.

J. L. (Kilsyth).—You have a strong hold on life, and are capable of enjoying it. You will improve slowly but surely; have a great desire for positive knowledge. Will learn mostly by observation and experience. Have a good memory of what you see and do; are steady and persevering; your mind is the most active when employed physically. Are generally happy and hopeful. Will not magnify trouble, or make things worse than they are. Are scientific rather than philosophical.—The lady will come to maturity rather late, yet from childhood on will be characterized for comprehensiveness of mind. She takes in more of a subject at first than many do. She is liable to be lost in thought, and the subjects of thought are too remote, and not sufficiently practical. She should not study too much; should avoid extreme or continued excitement. Can excel in almost everything she gives her mind to. She is full of affection and sympathy, and takes delight in making others happy.

J. P. (Northampton).—Your mind acts with great promptness. You are in too great a hurry; are liable to contradict yourself, and fail to make one act of your life harmonize with another. Try to be as consistent and circumspect as possible. You promise too much and too easily, and thus get too much work on hand, and fail to get suitable pay. You have a strong social domestic disposition, and would succeed in the management of children, as a teacher. You prefer female society to male for company. You are liable to be too kind and tender-hearted. You have a great desire to improve yourself and others. You have a favourable intellect for a reporter, teacher, preacher, or a practical man in almost any sphere. You must look well to your own interests.

R. G. (Manchester).—You have more brain-power than physical strength or vitality. Your head is not large enough at the base, and it is too large at the top. You are not enough of an animal, and are too much of a thinker. You must cultivate more force, "cheek," and hardness of mind; get more in love with yourself, and do not make too many sacrifices for others. Your reasoning brain and moral feelings greatly predominate; you cannot help doing good. Although not copious in speech, yet you have good talents to explain. Could teach phrenology better than you can examine heads. Take care of your health, for you have none too much vitality; and do not over-do in your zeal to do good to others.

DUNCAN (Carrickfergus).—You have a vigorous, working, industrious organization, and when you have anything to do worthy of an effort, you take hold in earnest, and generally finish what you begin. There is danger of your straining the point to gain an end; you cannot be half way in anything. You have an open, frank nature, are very sympathetic, and liable to be too generous. You have good practical talents, and could be either a scientist or a literary man, a lawyer or a doctor. Can do business better for another than for yourself. You can love, or let it alone.

A. K.—You are favourably organized for the enjoyment of life, health, and labour. Will not contradict yourself very often; are well balanced in body and mind. Are generally good-natured; yet capable of a high degree of excitement. You have a practical, scientific turn of mind; are a good judge of things, their uses, qualities, and conditions; are wide awake to what is going on around you, and are very fond of experiments. Would have made a good doctor, civil engineer, or builder. Are fond of music and oratory; are aspiring, and anxious to improve, and get up in the world, and be respected. You have a strong social and sympathetic nature, and liable to come too easily under their influence. Your mind, as a whole, is rather too tender, and could do with more destructive and executive power.

S. R. M.—You have great self-control, especially over your muscular system; are nimble on your feet, and could make an expert gymnast. Are full of spirit, and fond of teasing and joking. Are rather proud, and in sympathy with the superior class. Are very positive, and have presence of mind in times of danger. Have a great amount of energy, but not much cunning, fear, or timidity. Are quick of observation, and easily adapted to any off-hand business. Can make a good master but a poor servant, especially if you were interfered with. You are sharp, pointed, witty and personal in your remarks, and very quick to take a hint, and to see the bearings of a subject. Are good to entertain company. Can succeed as a business man, but are more in your element when you oversee and take the responsibility, hold office, or have a profession.

L. A. R.—You have an intense, earnest, and sincere nature, and

are much given to thought and intellectual pursuits ; you have a predominance of the mental temperament, and would prefer to give your time to reading and study, if not to teaching. You will never be satisfied in this world, for what you know will make you want to know more. Your standard of perfection is high, and as you improve it will grow higher and higher. Your greatest enjoyments are not connected with passions and selfish gratifications, but in sentiments, sympathies, and affections. Your mind is the most active when you are alone, for your imagination makes up your whole mind. You have good talents as a scholar and writer, and are particularly interested in the development of first principles. You have great self-respect, and are firm in your principles.

J. S. R.—You are naturally jolly, happy, and capable of exerting a genial and aspiring influence over others. You are a law unto yourself and able to regulate your own conduct. You have all your wits about you, and are alive to the news and doings of the day. You take a great interest in others, whether old or young. You are living for two worlds, this and the next. Are kind, respectful, spiritual, hopeful, conscientious, firm, steady, and uniform. You have energy without undue force ; are industrious, but you do not fret about your work. Are thoroughly domestic, and fond of home, and are well adapted to married life. Are a good talker, and can entertain others agreeably. Are orderly, and know where your things are. You have an intuitive mind, are quick to take the hint, and you readily discern the character and motives of others. You will have many friends, no enemies.

W. T. (Glasgow).—You have a temperament and tone of organization that indicates industry, strength, and tenacity. You have a thoroughly practical, utilitarian cast of mind. Your experience and not your imagination is your guide ; you deal in facts not in abstract theories. You are a good judge of what you see, and have good powers to plan, lay out, and oversee work. Have talents for a builder or a scientific man. Are plain, if not blunt-spoken ; you abominate a hypocrite ; are firm in your opinions, and were designed to be a master. You work too hard.

J. B. (and others).—Please read the conditions prefixed to these answers to correspondents. They are very simple and we cannot depart from them. From the apparent inability to grasp this fact much disappointment is occasioned.

“THERE is not a more dangerous evil than a flattering, dissembling counsellor. While he talks, his advice has hands and feet ; but when it should be put in practice, it stands like a mule, which will not be spurred forward.”—*Luther*.

THE
Phrenological Magazine.

OCTOBER, 1883.

W. E. GLADSTONE.*

A DELINEATION BY L. N. FOWLER.



R. GLADSTONE is one of the marked men of the age as to political standing, learning, and personal influence.

His phrenological organization is equally marked, and the science is fully sustained by what is known of his true character, aside from the opinion of his political friends and opponents.

His head is large, giving him his predominating power; yet he has a strong frame, a vigorous muscle, and a tenacious constitution. His strong osseous system has a great regulating and balancing influence, while his muscular system aids to give strength and stamina to his character. He has not a superabundance of arterial and digestive force, so that he does not show an excess of impulsiveness or animal feeling; hence he does not often go beyond his strength. He thinks, talks, walks, and works without much friction. He has more balance of power than most men. He can take average views of subjects, and does not delight in extremes of sensationalism. He has a great amount of force and executive ability, and has pluck to endure hardships and even severe labour. His frame is as well adapted to physical exercise as his brain is to the manifestation of thought and feeling, and he must have a distinct pleasure in work. His head is prominent in the crown and above the ears, giving him an acute sense of character, desire for position, influence, and appreciation, joined to a high degree of perseverance and determination of mind.

* This delineation appeared in the first number of the PHRENOLOGICAL MAGAZINE, which, though several times reprinted, is out of print. Therefore, as the demand for the delineation still continues, it has been thought best to reprint it in this form.—ED. P. M.

He has a marked degree of intellectual power. His frontal lobe is long, and very fully developed, and he is particularly large in the perceptive faculties, which give him great range of observation, definite and correct perception of things, their qualities, conditions, and uses; also shape, proportion, the laws of gravity, colour, the order, and the arrangement of things and ideas, a ready power to estimate numbers, recall places, to acquaint himself with facts, and the results of experiments, and to give him general scholastic and experimental memory. His large Language, joined to his great variety of knowledge, enables him to express himself in a free, and easy, and copious manner. His very large Order, connected with his great discipline of mind, enables him to arrange all his thoughts before utterance; while his large Constructiveness and Ideality aid to give scope to his mental operations, finish to his style of speaking, and ingenuity in the constructing of his sentences. His Secretiveness and Cautiousness aid to give reserve and tact, if necessary, in presenting his ideas; while his very large Comparison and Intuition give him great insight, penetration, and aptitude in getting at the essence of truth, together with great power of illustration, thus enabling him to make the most of his knowledge and experience.

He has superior ability for scientific or literary pursuits; can apply ideas, illustrate thoughts, and criticise positions taken, and make improvements; as well as originate, invent, start the debate, and lay the foundations.

The strength of Mr. Gladstone's character, however, is in his moral brain. His portraits indicate that all the organs are full or large in development. Probably Hope is the smallest of the group. He is not given to extravagant anticipation, and in making his plans he makes considerable allowance for failure. His hope is greater for the far than the near future. Conscientiousness, Veneration, and Benevolence are all controlling faculties, and must have an intense and abiding influence on character and motive. He could never allow himself to be governed by expediency without doing violence to his nature. There is something of the Hebrew prophet in his moral composition. Naturally slow to adopt innovations, and accept new ideas, he is conservative rather than revolutionary; yet once possessed of what appears to be a sense of duty, and it is as if he were given a command from above to "go and do this thing." His large Cautiousness, together with his Conscientiousness, makes him hesitate in taking a new position or a fresh responsibility; but having taken the step, he withholds not his hand from the plow.

Duty to God, duty to man, and duty to himself, as regards his allegiance to truth, must have always constituted the ultimate court of appeal in his character, and the decision therein come to, whether arrived at soon or late, compels his obedience, and having accepted a position, few men would more resolutely and steadfastly manifest the courage of their opinions. Mr. Gladstone might have been a more "popular"



man, in the ordinary sense of the term, if he had had more affability, suavity, and bendingness of mind (if I may coin a phrase), but it is not easy for him to be "all things to all men." Life to him is "real" and very "earnest," and though his mental constitution is such that he could have excelled in many spheres, he would not have been in his element save in one that brought him into direct contact with the actual problems of life.

THE INFLUENCE OF FOOD IN DISEASED CONDITIONS.

That Nature always tends towards cure is a fact well known to physicians and physiologists. In surgery, when bones are broken, the bandage keeps the parts together, but we cannot unite fractured portions. The healing power of Nature effects that—and so of all wounds and diseases. If we give the necessary conditions: pure air, pure food, pure water to drink and to thoroughly cleanse the skin, any disease or malady that is curable will yield to the "*vis medicatrix naturæ*" under such conditions. In this essay it is the intention to give many well authenticated instances of such recovery, a small record, as it were, of the Diet Cure—and although some passages may not be altogether novel to a few readers, to others they may serve as an encouragement; to all as a reminder. Pure fruits and cereals judiciously administered, appear to cast out and cleanse the system of impurities, while serving to build up new tissue out of pure blood. Our present wretched system of Diet and sanitation, or rather the want of it, on the contrary, always tends to choke up the system with impurities; hence the constant demand for pills and draughts concurrent with a supply of quack medicines called blood purifiers. We who renounce all drugs and blood poisonings hold with a wise physician who writes: "The casting out of diseased matter by natural means is purification, the renewal of the body with pure and healthy food is invigoration, and the two constitute a cure." It is well known that on the Continent they have what is called the "Grape Cure" going off to the vineyards, breathing the pure air, and living solely on grapes and a little bread—nothing else—and people get cured. Very successful has been the treatment by diet, and some amount of hydropathy or water cure, sweatings, etc., at an establishment in Waldesheim, in Germany—nervous diseases, rheumatism, and gout, yielding readily to the influence of reformed living. In Smith's "*Fruits and Farinacea*," at p. 75, on the beneficial effects of vegetable food on invalids, we find sixteen reliable cases of pulmonary disease, scrofula, epilepsy, apoplexy, ulcers, indigestion accompanied by rheumatism, etc., cured by abstinence from all animal food, and subsistence on a pure diet, composed of farinaceous and vegetable substances with milk.

Dr. Cheyne, a Dublin physician celebrated fifty years ago, lived freely, became enormously stout, lethargic, nervous, and

scorbutic. He tried medicine in vain, but was cured by a purely vegetable and milk diet, and wrote several works in defence of the system to which he afterwards remained constant.

Dr. Lambe, after a career of success as a physician, was disgusted at the charlatanism of the medical profession, threw it up, retired to Warwick, but continued to treat all who applied to him gratis, and cured them of their ailments by his peculiar regimen, a vegetable diet and distilled water, with which he had cured himself to a great extent of disorders which had nearly prostrated him, and to which simple regimen in his eightieth year he ascribes "the good share of health" which he had enjoyed, in spite of early weakness of constitution.

There is the historical case of Dr. Adam Ferguson, detailed in Watson's "Practice of Physic," and in the preface of one of Sir Walter Scott's novels. The doctor at sixty-five was seized with paralysis. Carried home, he sent for his friend, Dr. Black (not a vegetarian). "Turn a Pythagorean, man," were the words of his friend. He did turn a vegetarian at once, and recovered the use of his limbs and faculties.

Isaac Pitman, the renowned author of "Phonographic Shorthand," thus wrote to the *Times* newspaper, on the 27th January, 1879, dated from Bath:—"About forty years ago dyspepsia was carrying me to the grave. Medical advisers recommended animal food three times a day instead of once, and a glass of wine. On this regimen I got worse. I avoided all meat and wine, and gradually recovered my digestive powers," etc.

Mrs. Mary Nichols, of America, in a treatise entitled, "A Woman's Work in Water Cure," narrates a great number of cases of all kinds cured by a pure diet, and recovery hastened by judicious hydropathic treatment. She adds: "For many years I have used homœopathic remedies, admitting the reasonableness of the dynamic theory," but diet is always her first consideration.

To such as have not seen a little work entitled "The Diet Cure," by Dr. Nichols, I would refer them to page 39, which is the commencement of an interesting chapter on "Diet in Acute Scrofulous and Nervous Diseases."

The late Gibson Ward, F. R. S. H., of Ross, in "Food for the Million," thus narrates:—"Three cases of epilepsy which lately presented themselves were immediately cured. A Nottingham manufacturer wrote to me: 'I have a daughter, twenty-seven years old, apparently a healthy woman, with a ruddy countenance, who for the last seven years has been

fearfully afflicted with epileptic fits. She had been in London last year (1877) for eight months under the care of —, but, as in all previous attempts, medical assistance has not been of the least benefit. This morning I met Mr. —, and he wished me to write to you. If you can only give me a ray of hope you will confer,' etc. The reply was decisive and consolatory:—'She shall never have another fit of epilepsy if you only withdraw all flesh food, and give her, at first, a careful vegetable diet, as laid down here, and pure water.' As in every other case, the cure was immediate and final. Many similar cases could be detailed, but they all present the same testimony—instant relief and no more fits."

Taking a deep interest in this subject of diet and disease, and like many who have drunk of the dregs of misery, eager now to speed that gospel of health which shall banish three-fourths of the woes of humanity, the writer of this suggestive article has attended many public meetings of late years held on dietetic reform, and has often heard unsolicited testimony from among the audience gathered by chance on such occasions. For instance, Miss L—h H—t testified to the entire "absorption" and "dispersion" of a tumour, when near death's door, by abstinence from all description of flesh, alcohol, etc., substituting a spare diet, almost bordering for the time on starvation, composed of pure elements of the vegetable world, as sound whole-meal bread and fruits: also by some amount of hydropathic treatment.

Mr. M—k, cured of excessive prostration, debility, etc.; first by taking an expensive patent food, but finding it composed mainly of lentil meal, prepared it himself, was constant to a vegetarian diet, and enjoys perfect health.

A working cooper, kidneys diseased, enjoys now perfect health and strength on a diet not exceeding the cost of sixpence per day.

A young lady, with open ulcer which would not heal, all treatment unavailing, was at length advised by an "allopathic physician" to try the purer diet, abstaining even from tea and coffee. The sore healed, and thinking to return to the usual habits of society, she betook herself to her former diet, with the result that the old malady returned, to be again vanquished by a return to the natural cure.

The following testimony has been supplied by the proprietor of the Hygiene Institute and Vegetarian Restaurant in Oxford Street.

J. N., a female, left Charing Cross Hospital very little better than when she went in for treatment, for ulcerated stomach and bowels. Came to us, and after some days living

on a bland diet, consisting mainly of milk and coarse wholemeal, recovered.

J. P., clerk in the British Museum, been suffering for years from indigestion, after dining here a few weeks, and living as advised, recovered. Of such cases we have an abundance, all asserting they have been martyrs to physic. Here is my own, states the proprietor (Mr. J. Salisbury). At twenty-five years of age I did not think I should live to see thirty. I am now seventy. Reformed dietary was the physician in my case. Am more active at seventy than at twenty-five. The esteemed treasurer of the Food Reform Society, Dr. T. R. Allinson, L.R.C.P., L.R.C.S., who is rendering brave service to humanity by tongue and pen, in the great battle of Sanitation (all honour to such doctors, who fear not the cold neglect, nor the sneers which stab like knives), narrates a marvellous cure of gastric ulcer by means of a milk diet, gradually changed to fruits and farinaceous food; any imprudent return to flesh having given rise to great pain. He finds that whereas rheumatism treated allopathically runs in ordinary cases a six weeks' course, by strict vegetarian diet, abstinence from alcohol, and some amount of hydropathic treatment, a fortnight is sufficient without fear of a relapse. Congestion of the brain was cured by a resort to natural living—as also obesity—that unnatural condition in man or swine—and attributes most maladies not hereditary simply to our ignorant and unnatural mode of living, inducing dyspepsia and constipation, with a long train of evils resulting, as hæmorrhoids, congestion of the liver and kidneys, calculus, apoplexy, etc. Perhaps there are but few active members of any Food Reform Society but have a tale to tell of the personal fruitless results of drugging, change of air, and stimulants, as mostly prescribed, and of the discovery of an easy pleasant path that leads to health, ease, and a more or less enjoyable existence. May the time come speedily when many seekers after truth for its own sake, and not those mainly who have been lacerated in the mill of adversity, will rally round the standard of natural living. We have the experience, the testimony—the theory and practice is on our side. We ask the aid now and leisure of those who have the power to do great good by practically bringing before men the potent results of the Diet Cure.

It is to such and similar testimony as this, incomplete though it be, we would refer those who have any doubts about the natural cure by natural means, a system which instead of emptying the pocket tends to diminish expense and create happiness in the process. A lie may live long and die hard, but we who have faith in the future doubt not that

the truths of natural living will in the end prevail—in spite of all the dogmas and quackeries sanctioned by custom ; drilled into childhood and acquiesced in by men, and especially women, disregarding or relegating to the influence of mysterious powers the never-ending procession of rickety childhood, undeveloped and miserable manhood, with premature old age. Since it is abundantly evident that that course of living which cures disease is also the most powerful preventative of the same and promoter of health, as tending to that one thing most necessary to physical reformation of man, “the sound mind in the sound body,” this gospel of health we parade as the basis of all reform, because dense ignorance prevails on the subject among the rich, who suffer equally with the poor.

Unfortunately socialists and revolutionaries are generally so blinded by the abject misery prevailing in the lowest strata as to slight or neglect a question affecting all ; forgetful also of the fact, that with a vast many ignorance and plenty would only signify excess and consequent misery—or injury to self or others.

Congestion and over-crowding, and the consequent breathing of polluted air, and the lack of the means of ablution—the heartburnings arising out of the want of profitable employment and recreation—all these things possess a deep interest to health reformers, who generally speaking are the most thorough paced Radicals in this would-be progressive period. Whatever may be the position of any, we shall be all the better, however—aye, many degrees better—for the adoption of the principles enunciated by the Food Reform Society. It has been observed with much truth that the condition of a man or a woman depends very much upon regimen, corresponding to the way in which nutriment is supplied—gay, dull, lazy or lifeless. As extreme cases, Fuseli the painter, and Mrs. Radcliffe while writing the “Mysteries of Udolpho,” ate raw meat in order to engender horrible fancies in their imagination. How few attend to both quality and quantity in their food. Poor ill-used stomach, the recipient of everything which that capricious jade the tickled palate passes on ! How many fierce unmanageable passions, lunacies, murders, and suicides have been aggravated, if not caused, by the malarious humours forced out of thy long-suffering patience ; then ascending to the brain and engulfing the wondrous mechanism, man, in one chaos of disorder.

C. DELOLME

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

XI.—*The Organ of Constancy, or Firmness,*

Lies also in the middle of the skull, behind the organ of Theosophy, and before that of Loftiness, in that part where the *anguli frontales ossium bregmatis* meet. The adjacency of this organ to that of Theosophy, according to Gall's peculiar train of thought, serves to account, as well as moral causes, for that spirit of firmness and endurance which distinguishes the heroes of religion so much more than those of philosophy. That this organ, put into action beyond its due proportion, may produce the diseases of incurable obstinacy, &c., follows from all that has been said; hence pathological phenomena, as well as that firmness and constancy which Gall asserts he has found in conjunction with this organ, which might therefore be styled the organ of *Character*.

2. We proceed to the organs (according to Gall's not very correct or significant classification), by which we are enabled to acquire a more familiar acquaintance with objects which are known to us by means of the external senses.

Before Gall had arrived at the conclusion, that memory is a quality common to all powers, he considered the organs, which are now to be enumerated, as so many various organs of memory, as it is by means of these organs that man is enabled to arrange and fix the impressions of the external world in various relations. But now he prefers representing them as organs of a particular *sense*, which sense, when it rises to a certain degree of force and vividness, may become active and productive. The organs therefore that immediately follow are termed in German, Organ of the Sense of things, Sense of place, Sense of person, &c., a phraseology which deviates too much from our ordinary language to be adopted here.

XII.—*Organ of Aptness to learn and retain Things.*

This organ lies immediately over the root of the nose, betwixt the two eyebrows, upon and above the *glabella ossis frontis*, and appears simple on the skull, because the organs meet in the centre and coalesce into one. In the earlier classification which Gall employed, he termed this organ that of the *memory of things*, as opposed to words; the import of which appellation will be at once intelligible to those who

recollect in what sense the philologists distinguish between a *Lexicon verbale* and a *Lexicon reale*.

Gall has collected various observations concerning the formation of the forehead on the part pointed out, both in quadrupeds and men. First, he has found that those animals which are, to a certain degree, susceptible of education by man, are marked by a protuberance of the lower part of the forehead, nearly in the proportion of their capacity of being taught; and he illustrated this by the production of various skulls exhibiting this gradation; in the water-otter, the fox, the greyhound, the spaniel, &c. In the elephant, the forehead is much raised; still more in the ourang-outang, but most of all in man. Further, Gall has minutely compared the skulls of wild and tame animals of the same kind; and uniformly found that the tame, or tameable species, are marked with this organ, above the wild species. This he has particularly noticed in the wild and tame duck and goose, the tame hog, the wild boar, &c., &c. This observation induced Gall for a time to call this organ the *Abrichtung* organ; a word, which is not in our language, used to express the training of animals, an art which Gall thinks will never make any great or material progress, nature having fixed its limits. In men, Gall has observed this organ, particularly among that class of persons who are commonly called *matter-of-fact* people, men of information and business. It denotes the facility of receiving and retaining the impressions of outward things.

XIII.—Organ of Aptness to learn and retain Places.

This organ lies on each side of the organ last mentioned, and hence appears double on the skull. It fills that half of each of the eyebrows which is next the nose (*arcus superciliaris*).

The function which this organ is destined to fill in the inferior animals, is, that it gives the power of seeking out distant places, and of finding them again, when long deserted and left at a great distance. Birds of passage, such as swallows, storks, &c., &c., are all marked by this organ; and it is known of such birds that they have a perfect recollection of their ancient places of residence. Swallows will return, year after year, to the same nest. Pigeons, which are used as letter-carriers, have also this organ. The capacity which animals, dogs for instance, have, of following their masters, as well as of returning to their home, has generally been attributed, and often truly, to the acuteness of their scent; but many facts are known which do not allow of this explanation. Gall related a tale of a dog taken to England from

Vienna, which soon escaped from its new owner, went alone to the boat, contrived to get on board a ship, and accompanied a gentleman to Mayence, whom he there deserted, and then took his course alone to Vienna. Another well authenticated anecdote was related by Gall of a dog which, in like manner, escaped from Petersburg to Vienna. Whence can this uniform and otherwise inexplicable instinct arise, in certain species of animals? and why should not this instinct be attached to a peculiar structure of the nerves and brain?

In men, this organ seems to operate variously, but in every case it is connected with a disposition to observe the relations of space, and produces a delight and a peculiar ability in those occupations which depend upon such relations. For instance, both Marshal Laudon and General Mack, are distinguished by this organ; and these Generals are both said to possess, in an eminent degree, that important part of the duty of a Commander-in-Chief, which lies in a skilful disposition of troops in the field; what may be called the geometry of war.

It generates the love of travelling. After Gall had formed his opinion concerning this organ, he was struck by meeting a woman of low rank in the streets of Vienna, on whose forehead the organ was so strikingly marked, that he took an impression of her head for his cabinet. On inquiring of her concerning her life, he found she was possessed by a very mania for wandering. At sixteen she ran away from Munich to Vienna, where she lived, not as a servant at one place, for she could not possibly stay long in any family, but went from inn to inn, where her restless love of change was best gratified. She, as well as all persons thus organized, had a surprising skill in finding her way in strange places. We all know how very different this ability is, in different persons, and that it stands in no general relation to the intellect in general. The portraits and busts of most eminent travellers and navigators, are marked by this organ. If I mistake not, the biographer of Captain Cook mentions his countenance being distinguished by over-hanging eyebrows.

After an illness, the aptness, or sense which this organ is supposed to create, has been lost. Gall knew a bookseller's man, who had a nervous fever, and on his recovery, found that he had lost all recollection, and could not again learn to remember how and where the books in the shop were placed, with which he had been before so well acquainted.

XIV.—Organ of Aptness to recollect Persons.

Of this organ, one of the most insignificant in its function,

as well as in the observations by which its reality is supported, Gall himself spoke only with hesitation. It is observed, that many persons possess in a very striking degree, the power of recognizing individuals after a long separation, and with little previous knowledge. This power, or sense, as Gall terms it, is certainly essential to social life, and may, therefore, he contends, be with propriety supposed to be the object of a peculiar provision by nature. The organ lies in the brain near the *ethnoides*, and causes a protuberance of the skull in the orbits of the eyes, under the *foramen supra orbitalis* towards the nose, and above the *os unguis* (or *lachrymale*). Where this organ is strongly developed, the eyes are in consequence pressed downwards, and have somewhat of an oblique direction towards the nose; but where the adjacent organs are also strongly developed, this direction may not take place. All that Gall is able to advance in support of his supposition, is the relation of some singular phenomena of very young children, and of aged people, famous for a strong personal memory, with this peculiar direction of the orbit of the eye. But when unsupported by corroborating arguments, such facts cannot be supposed to influence the opinions of those who have not themselves witnessed them.

XV.—Organ of the Sense of Colour.

This is the first of the enumerated organs which seems to be wanting to the brute creation. The fear which horses and turkey-cocks have of a burning red colour, is an extreme case, in which even the coarse nerves of these animals are affected. In like manner it is sometimes found that individuals, and even whole families (Gall knows two such), who have no such sense. The organ lies on the outside of the organ of Place, and appears therefore double. When it is found in an eminent degree, it raises the eyebrow into a pleasing arch, and gives a very agreeable, free, and open expression to the forehead, and this, says Gall, is the characteristic physiognomy of painters. Gall asserts, he has remarked this organ in all who have a fine sense and who possess a skill and delicate management of colour, as artists. It is found also in those who are fond of gay and gaudy colours, and oftener in men than in women, and it is characteristic of the Chinese countenance. It is in general found more among Asiatics than Europeans, and is seen but little in Englishmen.

XVI.—Organ of Aptness to learn and retain Music.

This is the organ concerning which the disciples of Gall

venture most frequently to speak, and occasionally play the prophet. It is one about which Gall speaks with great confidence, and for which he seems to have gained most credit. It lies above the exterior angle of the eye, and occupies that part of the forehead which is circumscribed within the front half of the *linea semicircularis ossis frontis*, the back half of which corresponds with the organ of Cupidity. When this organ is strongly developed, that part of the skull is necessarily enlarged. It is extended either in breadth (Gall cited the Italian Viotti as an instance), or the forehead becomes high, as was the case in the Emperor Joseph. In Mozart (whom the Germans please to call the Shakespear of his art) the organ had extended itself in the breadth of the forehead. In other eminent musicians it appears like a large round swelling. But in every man of musical skill or natural uncultivated talents, Gall and his experienced followers declare they can discover the organ, and do not hesitate to determine *à priori* the want or the possession of the musical sense even of entire strangers. The existence of this organ receives strong conformation from the structure of the skulls of birds. Singing birds may all be distinguished by the form of the forehead. Every one of them has the conformation pointed out, which is as certainly not to be found in those species which do not sing, as the parrot, raven, jackdaw, peacock, &c. In singing birds, the existence of this organ has the effect of flattening, within the orbits of the eyes; while the monkey, which has no sense of music, has an oval-shaped orbit. In those animals, which, like the monkey, are absolutely without this organ, both the outward *lamina* of the orbit of the eye (inasmuch as it is formed by the *os frontis*) and the upper lamina, are not touched by the brain; and in man that part of the *os frontis* which forms the forehead, lies closely upon that part of the same frontal bone which forms the orbit of the eye; while, on the contrary, in those men and animals which have this organ, it is only the outward lamina of the orbits (inasmuch as they are formed by the *os frontis*) which is not touched by the brain, and the *pars frontalis ossis frontis* does not lie upon the *pars orbitalis*. That the sense of music does not depend upon the construction of the ear, may be fairly inferred from its total independence of the sense of hearing. It not unfrequently happens, that persons whose power of hearing is faint still possess a very delicate sense of music. In the *acta naturæ curiosum* is related the history of a boy who in a frenzy, during violent epileptic convulsions, sung several popular songs with great precision. How far this sense stands in connection with that of tact and

rythmus, is a point concerning which Gall has not yet been able to form a decided opinion.

XVII.—Organ of Aptness to learn and retain Numbers.

This organ occupies the extreme corners of the front lobe of the cerebrum, and is marked on the skull beneath the organ of Music, at the extreme end of the arch of the eyebrow, and at the exterior upper angle of the orbit of the eye; or on that part of the skull which envelopes, above and behind the *apophysis jugalis seu malaris ossis frontis*, and in the *fossa glandulæ lacrymalis ossis frontis*.

Gall was first led to conjecture the existence of this organ, from his observing a boy of thirteen years remarkable for his talent in calculation, who would, on hearing three distinct series of eleven figures once mentioned, retain them immediately, and perform with them all the operations of arithmetic. This observation was confirmed by others, and so often repeated till it produced that conviction, which perhaps no one will feel who does not himself make similar remarks. Among insane persons, Gall met with one man strongly marked with this organ, whose sole occupation consisted in enumerating from one to ninety-nine, and then beginning again. On a bust of Newton which Gall produced, he professes to find this organ; and he says it is also to be perceived in those of Kästner, Euler, Boden, &c. He related two cases of persons who when their business call for a long and continued calculation, complained of pain on the spot where the organ lies. Animals are deficient in this organ, and negroes have it very seldom.

XVIII.—Organ of Aptness to learn and retain Words.

This organ lies at the back of the lower part of the two front lobes of the brain, and presses upon the basis of the orbit of eye at the back part of the upper lamella, which is formed by the frontal bone. In living subjects it can be detected, but only when the organ is very much developed, by what is commonly called a goggle eye, the eye being projected forwards.

By what Gall terms the *sense of words*, he denotes the faculty of recollecting single words independently of their connection and sense, which is totally distinct from the sense of language.

Gall cited as persons possessing this organ in a high degree, several celebrated dramatic performers, but I find no general observation supporting his conjecture,

XIX.—*Organ of Aptness to learn and retain Languages.*

This organ lies in front of the lower part of the two front lobes of the brain, and presses the skull in the orbit of the eye upon the *os frontis* on the upper and front lamella of the orbit, between the organs of Number and Person; it presses the eye downwards, when developed to a high degree, so that the eye seems to be rather hanging than prominent.

This organ might be said to denote the philological talent, as it does not give the mere ability of learning words as a mere nomenclature, but the higher talent of seizing the spirit and genius of general and of particular languages. Animals (even the monkey) are without this organ.

In a digression concerning difficulties of speaking which are so often experienced by children, Gall expressed the opinion that the source of the evil lies not in a defect of the organs of speech, as is commonly conceived, but in an imperfect development in the organ in the brain, now under consideration. Gall stated a number of professional cases, showing that persons might speak without a palate, and even without a tongue, and cited *Lobstein's* dissertation entitled *Feminæ elinguis Historia*. He took occasion to examine the skulls of maniacs and others who had lost the faculty of speech, and found in a section, that the laminae of the orbits were higher arched at the ordinary seat of this organ, which is to be explained agreeably to the law before stated, that the laminae of the skull are formed by the activity of the brain, and follow it when it retreats. The total want of this organ produces idiocy.

XX.—*Organ of Mechanic Art*

This organ is found on the skull upon the temples, behind the organ of Number, and below the point where the organs of Music and Cupidity meet; or on the *os frontis*, immediately behind the *apophysis jugalis* of the same, and above the place where it joins with the *ala magna ossis sphenoidi*.

By mechanic art Gall here understands the genius of invention, as applied to external form. In unison with other organs, it forms the artist, in the most honourable sense of that term, as applied to the fine arts. This organ is found on the beaver, the marmot, and field-mouse, animals which possess a great portion of that instinctive skill which has so often been confounded with reason, and which certain metaphysicians still consider as such. The bust of Raphael was shown to Gall; he judged it to be that of a great mechanic.

Persons ingenious in the little contrivances of life are found possessed of this organ. It often happens that the forehead of persons marked with this organ has a certain square appearance, which Gall first considered as the characteristic of this class of persons.

XXI.—Organ of Prudence or Circumspection.

This organ is found about the middle of the parietalia, yet somewhat nearer the temples, behind and above the organs of Cunning and Words, hence near the *Linea semicircularis ossis bregmatis*, and above the same; it of course appears double.

Gall speaks of this organ with great confidence; his observations, he says, are too numerous and uniform not to have their source in nature. This organ is found in all those animals in whom caution is a characteristic. The doe has it very strongly marked, still more, the chamois. It is also common to those animals which seek their prey by night, in a greater degree than to those animals which seek their prey by day. The owl has this organ more strongly marked than the eagle. We ought not, says Gall, to ascribe the nocturnal excursions of this animal to the structure of its eyes, for by the power of enlarging or diminishing the pupil at pleasure, it can accommodate itself to every degree of light. The water-otter has this organ to a greater degree than the fox, with which it in other respects agrees. It is also found in the mole, the marten, &c. In men it denotes often a very scrupulous and timid character, when found in a greater degree; while in persons of a thoughtless and dissipated turn of mind, the want of this organ may be observed. Gall has examined, for this purpose, many beggars, and found this organ only in two subjects, while he has uniformly met with it in prudent and cautious persons. He has also met with it in madmen, who suffer from absurd and groundless fears and apprehensions. Gall (in spite of its apparent inconsistency) observes that this organ is found more strongly in children than in grown persons, and imputes to it their frequent hair-breadth escape from imminent dangers.

ALLOWING the performance of an honourable action to be attended with labour, the labour is soon over, but the honour is immortal. Whereas, should even pleasure wait on the commission of what is dishonourable, the pleasure is soon gone; but the dishonour is eternal.—*John Stewart.*

THE FACULTY OF CONSTRUCTIVENESS.

The facts on which phrenology is founded are so numerous and varied, that it is difficult to give even an abstract of them; but we shall from time to time treat of the faculties and organs separately and give a sketch of the evidence on which they are admitted.

We shall in the present number speak of Constructiveness; and give first Dr. Gall's account of the discovery of the organ, and of some of the facts on which he founds his belief in it; secondly, we shall state part of the evidence on which we ourselves are disposed to admit such a propensity and organ; and lastly, notice some facts in human nature, altogether independent of phrenology, which may enable the reader to judge of the probability of their existence. Dr. Gall's account of Constructiveness occupies sixteen quarto pages, so that we are necessarily compelled greatly to abridge his statements. He gives the following account of the discovery:—

When he first turned his attention to the talent for construction, manifested by some individuals, he had not discovered the fact, that every primitive faculty is connected with a particular part of the brain as its organ; and on this account, he directed his observations towards the whole head of great mechanicians. He was frequently struck with the circumstance, that the head of these artists was as large in the temporal regions as at the cheek-bones. This, however, although occurring frequently, was not a certain and infallible characteristic; and hence, he was led by degrees to believe that the talent depended on a particular power. To discover a particular indication of it in the head he made acquaintance with men of distinguished mechanical genius, wherever he found them; he studied the forms of their heads and moulded them. He soon met some in whom the diameter from temple to temple was greater than that from the one zygomatic bone to the other; and at last found two celebrated mechanicians, in whom there appeared two swellings, round and distinct, at the temples. These heads convinced him that it is not the circumstance of equality in the zygomatic and temporal diameters which indicated a genius for mechanical construction, but a round protuberance in the temporal region, situated in some individuals a little behind, and in others a little behind and above, the eye. This protuberance is always found in concomitance with great constructive talent, and when the zygomatic diameter is equal to it, there is then a parallelism of the face; but, as the

zigomatic bone is not connected with the organ, and projects more or less in different individuals, this form of countenance is not an invariable concomitant of constructive talent, and ought not to be taken as the measure of the development of the organ.*

Having thus obtained some idea of the seat and external appearance of the organ, Dr. Gall assiduously multiplied observations. At Vienna some gentleman of distinction brought to him a person concerning whose talents they solicited his opinion. He stated that he ought to have a great tendency towards mechanics. The gentleman imagined that he was mistaken, but the subject of the experiment was greatly struck with this observation: he was the famous painter Unterberger. To show that Dr. Gall had judged with perfect accuracy, he declared that he had always had a passion for the mechanical arts, and that he painted only for a livelihood. He carried the party to his house, where he showed them a multitude of machines and instruments, some of which he had invented, and others improved. Besides, Dr. Gall remarks, that the talent for design so essential to a painter is connected with the organ of Constructiveness, so that the art which he practised publicly was a manifestation of the faculty.

Dr. Scheel, of Copenhagen, had attended a course of Dr. Gall's lectures at Vienna, from which he went to Rome. One day he entered abruptly, when Dr. Gall was surrounded by his pupils, and presenting to him the cast of a skull, asked his opinion of it. Dr. Gall instantly said, that he "had never seen the organ of Constructiveness so largely developed as in the head in question." Scheel continued his interrogatories. Dr. Gall then pointed out also a large development of the organs of Amativeness and Imitation. "How do you find the organ of Colouring?" "I had not previously adverted to it," said Gall, "for it is only moderately developed." Scheel replied with much satisfaction, "that it was a cast of the skull of Raphael." Every reader acquainted with the history of this celebrated genius will perceive that Dr. Gall's indications were exceedingly characteristic. Casts of this skull may be seen in most phrenological collections, and the organs mentioned as large will be found very conspicuously indicated. That of Constructiveness in particular presents the round elevated appearance above described, as the surest indication of its presence in a high degree.

* In the plates and busts published in this country, the organ is placed too low, and too far forward. In a great variety of instances we have found it very distinctly marked, a little upwards and backwards from the situation in the busts.

Several of Dr. Gall's auditors spoke to him of a man who was gifted with an extraordinary talent for mechanics, and he described to them beforehand what form of a head he ought to have, and they went to visit him: it was the ingenious mathematical instrument-maker, Lindner, at Vienna; and his temples rose out in two little rounded irregular prominences. Dr. Gall had previously found the same form of head in the celebrated mechanic and astronomer David, Frère Augustin, and in the famous Voigtländer, mathematical instrument-maker. At Paris, Prince Schwartzberg, then minister of Austria, wished to put Drs. Gall and Spurzheim to the test. When they arose from table, he conducted Dr. Gall into an adjoining apartment, and showed him a young man: without speaking a word he and the Prince rejoined the company, and he requested Dr. Spurzheim to go and examine the young man's head. During his absence, Dr. Gall told the company what he thought of the youth. Dr. Spurzheim immediately returned, and said, that he believed him to be a great mechanician, or an eminent artist in some collateral branch. The Prince in fact, had brought him to Paris on account of his great mechanical talents, and supplied him with the means of following out his studies.

Dr. Gall adds, that at Vienna, and in the whole course of his travels, he had found this organ developed in mechanicians, architects, designers, and sculptors, in proportion to their talent: for example, in Messrs. Fischer and Zauner, sculptors at Vienna; Grosch, engraver at Copenhagen; Plotz, painter; Hause, architect; Block, at Wurzburg; Canova; Muller, engraver; Danecker, sculptor at Stuttgart; Baumann, engineer for mathematical and astronomical instruments; in a young man whose instruction the late King of Wurtemberg intrusted to M. Danecker, because he had remarked in him a great talent for mechanics; in M. Hösslein, of Augsburg, who, in 1807, had constructed from simple description a hydraulic béliet, which, with a descent of two feet, raised water more than four feet; in Ottony and Pfug at Jena; Hueber, designer of insects at Augsburg; in Baader and Reichenbacher at Munich; in Baron Drais, inventor of the velocipede, and of a new system of calculation. In Bréguet and Regnier at Paris, &c., &c.

Dr. Spurzheim mentions the case of a milliner of Vienna who was remarkable for constructive talent in her art, and in whom the organ is very large. A cast of her skull presents an appearance in this particular part resembling Raphael's.

Dr. Gall mentions, that it is difficult to discover the position

of this organ in some of the lower animals, on account of the different dispositions of the convolutions, their small size, and the total absence of several of them which are found in man. The organ of Tune in the lower creatures is situated toward the middle of the arch of the eyebrow, and that of Constructiveness lies a little behind it. In the hamster, marmot, and castor, of which he gives plates, it is easily recognized; and at the part in question, the skulls of these animals bear a close resemblance to each other. In the rodents, the organ will be found immediately above and before the base of the zygomatic arch, and the greater the talent for construction, the more this region of their head is projecting. The rabbit burrows under ground, and the hare lies upon the surface, and yet their external members are the same. On comparing their skulls, this region will be found more developed in the rabbit than in the hare. The same difference is perceptible between the crania of birds which build their nests, and of those which do not build. Indeed, the best way to become acquainted with the appearance of the organ in the lower animals, is to compare the heads of the same species of animals which build, with those which do not manifest this instinct; the hare, for example, with the rabbit, or birds which make nests with those which do not.

Thus far Dr. Gall. Our own belief in this faculty and organ is founded on the following, among other observations. The organ is very largely developed in Mr. Brunell, the celebrated inventor of machinery for making blocks for the rigging of ships, by means of steam; and who, besides, exhibited great talent for mechanics in numerous departments of art. His mask is in most phrenological collections. It is large in Edwards, an eminent engraver, Wilkey, Haydon, and J. F. Williams, celebrated painters; in Sir W. Herschell, whose great discoveries in astronomy arose from the excellence of his telescopes made by his own hands; and in Mr. Samuel Joseph, an eminent sculptor. In the late Sir Henry Raeburn, who was bred a goldsmith, but became a painter by the mere impulse of nature, without teaching, and without opportunities of study, we observed it large. We have found it large in all the eminent operative surgeons of this city; in our distinguished engravers, such as Mr. James Stewart, Mr. Lizars, and Mr. C. Thompson; and also in the most celebrated cabinet-makers who have displayed invention in their art. We have observed it and Form large in a great number of children who were fond of clipping and drawing figures. A member of a Medical Society some years ago read an essay against phrenology in that body. He asked a

phrenologist to take tea with him, and thereafter to go and hear the paper. During tea his son entered the room, and his lady, pointing to the child, said to the phrenologist, "Well, what do you perceive in this head?" The phrenologist replied, "Form and Constructiveness are large, and he ought to clip or draw figures with some taste." "Very correct," answered the lady, and produced several beautiful specimens of his ingenuity in this respect. Her husband observed that, "it was a curious coincidence," and proceeded to read his paper, and remains, we believe, an opponent, but a courteous one, to this day. One fact is no evidence on which to found belief, but it ought to lead to observation, while the author of the essay condemned phrenology on argument alone. The writer of this article, many years ago, and before he knew phrenology, employed a tailor who spoiled every suit of clothes he attempted to make; and he was obliged to leave him for another who was much more successful. Both are still alive, and he has often remarked that in the former the organ in question is very defective, while in the latter it is amply developed. On the other hand, we possess a cast of the head of a very ingenious friend distinguished for his talents as an author, who has often complained to us of so great a want of constructive ability, that he found it difficult even to learn to write; and in his head, although large in other dimensions, there is a conspicuous deficiency in the region of Constructiveness. To these negative instances fall to be added the casts and skulls of the New Hollanders in the Phrenological Society's collection. These are all remarkably narrow in the situation of this organ; and travellers have reported, that the constructive arts are in a lower condition with them than with almost any other variety of the human race. Contrasted with them, are the Italians and French. An accurate and intelligent phrenologist authorizes us to state that, during his travels in Italy he observed a full development of Constructiveness to be a general feature in the Italian head; and we have observed the same to hold, but in a less degree, in the French. Both of these nations possess this organ in a higher degree than the English in general. Individuals among the latter are greatly gifted with it, and the nation in general possesses high intellectual organs, so that great discoveries in art are made in this country by particular persons, and speedily adopted and carried forward by those whom they benefit; but the natural tastes for works of art, and the enjoyment derived from them, are here less in degree, and less general than in France, and especially than in Italy. The busts of eminent artists of former ages display also a

great development of this organ ; in particular in the bust of Michael Angelo, in the church Santa Croce at Florence, the breadth from temple to temple is enormous. The reflecting organs, also situated in the forehead, and likewise Ideality in him are very large ; and these add understanding and taste to the instinctive talent for works of art conferred by Constructiveness.

When Dr. Spurzheim was in Edinburgh, in 1817, he visited the workshop of Mr. James Milne, brass-founder, a gentleman who himself displays no small inventive genius in his trade, and in whom Constructiveness is largely developed, and examined the heads of his apprentices. The following is Mr. Milne's account of what took place upon the occasion :

"On the first boy presented to Dr. Spurzheim after his entering the shop, he observed that he would excel in any thing he was put to. In this he was perfectly correct, as he was one of the cleverest boys I ever had. On proceeding farther, Dr. Spurzheim remarked of another boy, that he would make a good workman. In this instance, also, his observation was well founded. An elder brother of his was working next him, who he said, would also turn out a good workman, but not equal to the other. I mentioned, that in point of fact the former was the best, although both were good. In the course of further observation, Dr. Spurzheim remarked of others that they ought to be ordinary tradesmen, and they were so. At last he pointed out one, who he said, ought to be of a different cast, and of whom I would never be able to make anything as a workman, and this turned out to be too correct ; for the boy served an apprenticeship of seven years, and when done he was not able to do one-third of the work performed by other individuals to whose instruction no greater attention had been paid. So much was I struck with Dr. Spurzheim's observations, and so correct have I found the indications presented by the organization to be, that when workmen or boys to serve as apprentices apply to me, I at once give the preference to those possessing a large Constructiveness ; and if the deficiency is very great, I would be disposed to decline receiving them, being convinced of their inability to succeed."

Dr. Gall mentions, that at Mulhausen, in Switzerland, the manufacturers do not receive into their employment any children except those who from an early age have displayed a talent for the arts in drawing and clipping figures, because they know from experience that such subjects alone become expert and intelligent workmen.

These are positive facts in regard to this organ. We shall

now notice a few circumstances illustrative of the existence of a talent for construction, as a distinct power of the mind apart from the general faculties of the understanding, from which the reader may form an opinion of the extent to which the phrenological views agree or disagree with the common phenomena of human nature.

Among the lower animals, it is clear that the ability to construct is not in proportion to the endowment of understanding. The dog, horse, and elephant, who in sagacity approach very closely to the more imperfect specimens of the human race, never in any circumstances attempt a work of art. The bee, the beaver, the swallow, on the contrary, with far less general intellect, rival the productions of man. Turning our attention to man, we observe, that while among the children of the same family, or the same school, some are fond of a variety of amusements unconnected with art, others constantly devote themselves at their leisure hours to designing with chalk various objects on the boards of books, walls, paper, &c., or occupy themselves with fashioning in wax or clay, or clipping in paper the figures of animals, trees, or men. Children of a very tender age have sometimes made models of a ship of war which the greatest philosopher would in vain strive to imitate. The young Vaucanson had only seen a clock through the window of its case, when he constructed one in wood, with no other utensils than a bad knife. A gentleman with whom we were intimately acquainted, invented and constructed at six years of age a mill for making pot-barley, and actually set it in operation by a small jet from the main stream of the Water of Leith. Lebrun drew designs with chalk at three years of age, and at twelve he made a portrait of his grandfather. Sir Christopher Wren at thirteen, constructed an ingenious machine for representing the course of the planets. Michael Angelo at sixteen, executed works which were compared with those of antiquity.

The greater number of eminent artists have received no education capable of accounting for their talents; but, on the contrary, have frequently been compelled to struggle against the greatest obstacles, and to endure the most distressing privations in following out their natural inclinations. Other individuals, again, educated for the arts, on whom every advantage has been lavished, when destitute of genius have never surpassed mediocrity. Frequently, too, men whom external circumstances have prevented from devoting themselves to occupations to which they were naturally inclined, have occupied themselves with mechanics as a pastime and amusement. An eminent advocate at the Scottish bar on

whom Constructiveness is very largely developed, informed us that occasionally, in the very act of composing a written pleading on the most abstract questions of law, vivid conceptions of particular pieces of mechanism, or of new applications of some mechanical principle, dart into his mind, and keep their place so as to interrupt the current of his voluntary thoughts until he had embodied them in a diagram or description, after which he is able to dismiss them and proceed with his professional duties. Leopold I., Peter the Great, and Louis XVI constructed locks. The organs of Constructiveness were largely developed in the late Lord President Blair, of the Court of Session, as appears from a cast of his head and statue, and also from his portraits; and we have been informed that he had a private workshop at Avondale in Linlithgowshire, in which he spent many hours during the vacations of the Court constructing pieces of mechanism with his own hands. The predilection of such individuals for the practice of mechanical arts cannot reasonably be ascribed to want, or to their great intellectual faculties; for innumerable objects more directly fitted to gratify or relieve the understanding must have presented themselves to their notice had they not been led by a special liking to the course they followed, and felt themselves inspired by a particular talent for such avocations. Not only so, but we see examples of an opposite description; namely, of men of great depth and comprehensiveness of intellect who are wholly destitute of manual dexterity. Lucien and Socrates renounced sculpture because they felt that they possessed no genius for it. M. Schurer, formerly professor of natural philosophy at Strasburg, broke every article he touched. There are persons who can never learn to make a pen or sharp a razor; and Dr. Gall mentions that two of his friends, the one an excellent teacher, the other "grand ministre" were passionately fond of gardening, but he could never teach them to engraft a tree. As a contrast to these, men of considerable mechanical dexterity are frequently found to be remarkably destitute of talent for every other pursuit, and to possess very limited understandings.

Cases of disease also tend to prove that Constructiveness depends on a special faculty, and is not the result merely of general intellect. Dr. Rush mentions two cases in which a talent of design had unfolded itself during a fit of insanity; and he adds, that there is no insane hospital in which examples are not found of individuals who, although they never showed the least trace of mechanical talent previously to their loss of understanding, have constructed the most

curious machines, and even ships completely equipped. These cases are at utter variance with the notion that the intellectual faculties produce this talent; for in them they were deranged, while they accord with the phrenological doctrine of this power depending on a separate faculty and organ which may remain sound when the others are diseased. Fodere, in his *Traité du Goitre et de la Cretinisme*, p. 133, remarks, "That by an inexplicable singularity some of these individuals (Cretins,) endowed with so weak minds, are born with a particular talent for copying paintings, for rhyming, or for music. I have known several who taught themselves to play passably on the organ and harpsichord; others who understood, without ever having had a master, the repairing of watches, and the construction of some pieces of mechanism.

He adds, that these powers could not be attributed to the intellect, "for these individuals not only could not read books which treated of the principles of mechanism, *mais ils étaient déroutés lorsqu'on en parlait et ne se perfectionaient jamais.*"

Constructiveness confers only the power of constructing in general, and the results which it is capable of producing are influenced by other faculties. For example, intellect alone, with extreme deficiency of Constructiveness, will never enable an individual to become an expert mechanician; but, if the development of Constructiveness be equal in two individuals, and the intellectual organs be large in the one and small in the other, the former will accomplish much higher designs than the latter; and the reason is obvious. The primitive talent for construction is the same in both; but the one, by means of reflection, is endowed with the perception of the relation of means to an end, and hence is able to select from the wide circle of nature and of art every object and appliance that may extend and elevate his conceptions and their execution, while the latter is limited to a mere mechanical talent like that displayed by the beaver, the spider, or the bee, admirable in itself as far as it goes, but never stretching beyond imitation of objects previously existing.

The direction of Constructiveness depends also upon the other faculties with which it is combined. The greatest development of this organ would not be sufficient to constitute a musical instrument-maker without Tune to judge of tones. Constructiveness, with Number and Size large, would constitute a good mathematical instrument-maker. Constructiveness, Ideality, and Veneration would prompt the possessor to design places of religious worship. Join Constructiveness with much Combativeness and Destructiveness, and delight would be experienced in making ships of war, cannons,

mortars, or bomb-shells. Constructiveness combined with Secretiveness, Imitation, and Form large, give a talent for sculpture; add Colour, and a genius for portrait-painting is produced; add Locality, and a talent for landscape-painting is the result. The organs of Size, Form, Individuality, and Locality, all large (indicated by a general fulness of the head at the top of the nose,) combined with Constructiveness are essential to a genius for operating machinery in contradistinction to still-life mechanism. We have observed that, where the former organs were large, the individual was fond of every thing connected with weight, momentum, and motion, and delighted in machines in which active powers and principles were displayed. If Constructiveness was also larger, he could embody his conceptions in models made by his own hands; but if this organ was small, he was obliged to resort to other individuals to execute his inventions. On the other hand, where Constructiveness was large and these organs small, we have observed the tendency to be towards drawing or architecture, or some other form of still-life mechanism, with little interest in machinery in motion. In Mr. James Milne's son this combination occurs; and, while we have seen specimens of his talents in drawing, without teaching, we have been informed that he has yet displayed no partiality for the kind of mechanism connected with motion.

FIFINE AND HER FRIENDS;

BY CAVE NORTH.

CHAPTER XV.

THE SEARCH CONTINUED.

The second day after Fifine's disappearance came and went without any light being thrown on the mystery. Claus could do nothing but wander about, often aimlessly enough, examining every street, court, and alley for the twentieth time; making inquiries of all kinds of people; soliciting counsel and information of policemen; watching houses of ill-repute, and breaking his heart generally over his poor lost lamb. Bleichroder had suggested advertising in the papers, and an advertisement had accordingly been inserted; but of that also nothing came. At every turn the result was the same—no counsel, no hope. At home there was nothing but sad faces. Always as he approached the Prediger House, the first thing he saw was Annette's face at the window. At first she would run to the door to meet him as he came up-stairs, in order to ask what news there was; but after-

wards she saw too clearly by his downcast look that there was no good news, and so did not go to the door, or, if she did, it was only to condole with him, and bid him cheer up. Then Wendel would waylay him on the stairs above, and ask him, in a whisper, if he had heard nothing, saying that her poor boy was taking on terribly at the loss of his friend and teacher; which was true enough, poor Fritz feeling the difference between Fifine's presence and her absence perhaps as much as any one, after the Professor and Bear.

In the Bromm house, during the Professor's absence, Bear and Zerafine took turns at weeping; for when Bear gave way to tears, Zerafine dried her eyes, and bade her be cheerful and not give way to despair; then, having succeeded in comforting her mistress and friend a little, she would presently go into a corner and moisten her own apron, or whatever might be handy, with her tears; whereupon it would be Bear's turn to find her out, and gently upbraid her for giving way to such weakness, which, she would say, was like finding fault with Providence.

"Well, I do think," replied Zerafine, once, "I do think one needs find fault with Providence; for if Providence has had any hand in plaguing such a sweet creature so, Providence ought to be ashamed of itself—there!"

"Oh, Zerafine!" cried Bear.

"I don't care," replied Zerafine; "it's true; and you know that, if you were Providence, you would not do such a thing!"

Bear was a prudent woman, one whom no amount of trouble or suffering—and passion she had not—could deprive of her prudence. She, therefore, replied that she believed that if she were Providence, she would have done exactly as Providence had done.

When Claus came in, both the women would dry their eyes, and try to cheer him up; feeling that their own emotions must be hushed up, and hidden, in order to attempt to brighten up his woe-begone visnomy; and so the second day came to an end.

Leitner had called in the afternoon to say that he would postpone his lesson, which fell on that day, and to ask if there was anything he could do for the household in this time of trouble. Bear asked him to drop in in the evening, just to talk to Claus, and 'liven him up a bit. Adolf did so; but they had not been many minutes in conversation before the Professor rose and put on his hat. He asked Leitner to accompany him, saying that it had occurred to him that he had not made any inquiries at Weinberg, where he knew Undine was fond of taking her walks with Annette.

"We thought of that," replied Leitner; "Annette and I went there this afternoon. We called at several places where they were in the habit of going, not forgetting the little Milchhoff, where they sometimes took curds together, but without result;" save that, the young man might have added, a common sorrow had brought him and Annette nearer together, thus enabling them, under the shadow of a mutual grief, to indulge very innocently a stronger and deeper passion; for, as every one knows, the warmer emotions always thrive

best under the more sedate ones, as plants are said to grow more quickly during the cold dewy night than during the hot day; which may account for the quick budding and ripening of affections at church, and during the observance of religious ceremonies generally.

The flirtation, if such it could be called, had been very innocent. While they sat in the Milchhoff, Annette needing a rest, the young lady had wept at the remembrance of the times she and Undine had spent there together, and the thought that they might never meet again; and the sight of her tearful orbs being too much for the young man, he had taken her handkerchief, and gently wiped the tears away. It is true that the operation had required him to put his other arm about her, but he did not go any further than that, yearn though he did for a closer embrace.

Notwithstanding the fact of Leitner and Annette's visit to Weinberg, the Professor was still resolved to go thither. Leitner accompanied him, and they made all possible inquiries, but with the result that might have been expected. It was late when they returned, and after a few minutes' chat with Nussbaum, Adolf mounted to his solitary chamber. But before he retired to rest, he wrote the following letter to his friend, Fafner:—

"MEIN LIEBER FREUND,

"I have little that is new to tell you. The twin star of our firmament is still in eclipse; if even eclipse can describe our lost star. This is the third night since her disappearance, and I think we are more in the dark than ever, for everything that anxiety could suggest as a possible means of tracing her has been done; and yet not the slightest clue has been found. She was seen to go as far as the pump—our neighbour, the gilder, saw her there; and there she disappears—vanishes, as it would seem, into thin air. Did you ever hear anything to equal it? I have thought, once or twice, of suggesting that we have the pump opened.

"But, truly, mein lieber Fafner, it is most mysterious, and almost makes one hark back to the days of witchcraft, and belief in fairies and genii; for consider how this female creature was found late at night on the Devil's Bridge, and under such strange circumstances that the good Claus Bromm christened her Undine; and now behold how she disappears in a similarly mysterious manner—by a pump!

"Du guter Fafner, help me with some hard, cogent reasoning, or I shall go over to the romancists, become of the school of Paracelsus, and eschew science and the gospel of common sense!

"To-day has again been a day of search, although at heart everybody seems to have given up hope of finding the lost one by any of the methods we have employed, or can employ; especially Bleichroder (the Doctor, you will remember, whom I have mentioned in one or two of my letters), who confesses his lack of faith in any of the fair sex, and professes his belief that our paragon, our Beauty, has gone back to the Beast—her husband—and all that that means. I doubt him, however; for to-day I found him wandering about, trying to pick up a clue to Fifine's whereabouts, which he would

hardly have done had he really thought she had gone to the land of figs and poetry, as you call that island which we others call England. It is a curious fact, however, that she had about her when she went away money enough, probably, to take her to London, received that very afternoon for her last lot of fans. Bleichroder pretends to regard this as proof positive. For myself, I have, for the present, discarded all common-sense methods of accounting for the mystery, and shall be loth to accept any but a solution such as would have satisfied the romancers of the Middle Ages, or the story-tellers of Bagdhad.

"Even Annette has been on the hunt—with your humble friend by her side, to see that she, too, was not spirited away. We searched the extra-flaviatile suburb of Weinberg—searched it very thoroughly; and yet the time seemed very short, for, indeed, though a very sorrowful task, it was most delightful in the doing; and though, truly, I would have the Undine found, and that speedily, yet would I go seeking every day might I but go with the same fellow-seeker, and have the same privilege of comforting her ever, even though the search were to last for all time, and the sought still unfound; for methinks that true happiness must ever be in the seeking, never in the finding.

"I imagine I see thee now, gute Fafner, with thy long serious visage, and thy 'Alas! and alas for human nature!' And, truly, it is a deplorable thing, that one can draw enjoyment out of a common sorrow; but you know I am not one to pretend to more than I feel; and indeed it seems to be the nature of this ridiculous, sublime creature we call man, that he is always the nearest a laugh when the most lacrymose, the nearest enjoyment when the most sorrowful, and that his appetites thrive when his sentiments are withered; as the broken-hearted man can still enjoy Kalbsbraten, and the bereaved wife yet fatten on chocolate creams.

"I would fain finish with something in a different mood; but I cannot to-day, for somehow meseems as though there were in this phantasmagoria we call life a something which, the more we assume airs of seriousness and importance, the more it mocks our art.

"DEINE ADOLF."

CHAPTER XVI.

DIVINATION BY DREAMS.

For an account of the next day's doings in the Prediger House, I will again avail myself of Leitner's letter to Fafner, written somewhat after midnight, his favourite hour for meditation and epistolary work. He generally found himself at that hour with a remnant of mental energy that it was necessary to work off in some way before he could successfully woo the embraces of the drowsy god. On this

occasion he was particularly wide-awake, and having much to communicate he at once sat down, pen in hand.

"I have so much to tell," he wrote, "in order to keep you properly informed as to the progress of the serio-comedy being enacted here, that I have enough to keep me at work till cock-crow. But where to begin I hardly know, unless indeed I begin with the beginning—that is, of the day ; not the day, be it understood, as you reckon it, almost from sunrise, but from the hour when it is daylight to me, which, as a usual thing, is about eight o'clock, though on this particular morning, the daily time-measurer had marked off an additional half-hour when I opened my eyes ; for at that hour precisely my chamber-maid, cook, waitress, and lady-in-waiting, Frau Grossbein, delivered her three regulation matutinal knocks at my door, signifying, in the language of the hand, 'Get up, Sir!' which I accordingly did. I suppose when I sat down to that aboriginal (uralt) custom of opening and shutting the mouth with which our advanced science and civilization does not enable us yet to dispense, I looked cross or something, for the worthy waitress asked apologetically if she had waked me too soon ; and on my replying with the negative 'No,' followed by the interrogative 'Why?' the good creature replied, 'because she thought I did not look rested,' which, translated into plain language, meant that I looked unusually stupid or disagreeable ; whereupon, of course, I laid the blame at Fiffne's door—if, indeed, the poor thing can be said to have a door, being probably homeless, or her house (*i.e.*, her body) tenantless. Therein, I must confess, I was guilty of exaggeration, if not of hypocrisy, the real reason of my downcast looks, as of my downcast heart, being the reaction from last night's exaltation and Annettitude (a word of my own coinage, my dear Fafner, but quite as good, in my opinion, as beatitude, and with more meaning, although you may not see your way to adopt it), although the lost Neiade has caused me both anxiety and pain. 'Ah, sir,' said my lady-in-waiting, 'there is good news on that score!' and as she said it her face became as a harbinger of good to come. My heart gave a great bound, as if it had taken on it the function of a trip-hammer in addition to that of time-beater. Whether I exclaimed 'What!' or merely showed a great note of interrogation in my widening eyes, and the cantle of roll suddenly stopped in the process of occultation, I know not, but the smiling harbinger hurried out the following : 'My Fritz dreamed that the young English lady was not lost for good, and would surely come back again. And, moreover, he says he believes it ; and when Fritz says he believes a thing, you may be sure there is something in it.' The poor dear Veronese Juliet came to my mind, and her reply to her prosy nurse :

" ' How oddly thou repliest :
Your love says like an honest gentleman—
Where is your mother ? ' "

I said, however, that I supposed dreams generally went by contraries. 'Truly,' replied my diviner of dreams, 'but not with Fritz ; besides,

yesterday the storks flew round and round above the house, and that betokens good luck.'

" 'In that case,' said I, 'it will surely come, for a stork never lies.'

" Later in the day, when I saw my Annette, I told her of Fritz's dream, and with a readiness which saddens as well as alarms me, she at once believed it because it was good. Then I followed up the dream with the divination from the stork's flight.

" 'Ah, the dear storks!' she replied, 'they flew away to-day at noon, and we shall see no more of them for half a year!'

" Thus it was plain that the wheeling of the storks above the house was simply a premonition of their own migration, and of the near approach of winter, and had no more reference to Fifine than the ticking of my watch, or the revolutions of Saturn.

" I did not say as much to Annette, for she is a pious little soul, and hallows the whole witch's canon of superstition with as strict an observance as she gives the Scriptural one; which I take to be an amiable trait, for I love not your women who reckon you up everything by rule-of-three, or the propositions of Euclid, and banish your poetical Amors and Cupids with a physiological demonstration.

" But to hasten on with my day's history. I must tell you how it was arranged that in the evening Annette and I should drop in, as before the new flight, and endeavour to infuse a little joy into the good old Professor's bosom. We found him sad enough, but not so altogether given over to despair as yesterday. For the most part he sat silently in the corner, although we got him to talk a little. He had been told of Fritz's vaticination with regard to Undine; and, notwithstanding he shook his head at it, he seemed to take some comfort therefrom. Zerafine surprised everybody by averring her utter belief in the dream, and by adventuring the bold prophecy that within a week we should see or hear something of the missing one. The reason for her belief appeared to be that several strange and unaccountable things had occurred yesterday and to-day—the flight of the storks, the boy's dream, and Beauty's going to buy a roll with a groschen.

" The latter, it appears, was gospel truth; Susmilch, the baker, having told Zerafine herself, and shown her the identical coin the dog had brought and placed on the counter. Beauty, by the way, is very clever, and often gets a groschen for his tricks, many of them taught him by his mistress.

" But though these idle gossippings did not bring conviction to the heart of either Claus or his better half, they seemed to give them comfort—for when comfort is scarce, my dear Fafner, the human heart can extract it out of almost anything, just as when gold mines have ceased to yield, the miners have taken the refuse of former years, and extracted therefrom the precious metal."

CHAPTER XVII.

FRITZ'S DISCOVERY.

Several days now passed without anything happening in connection with the Bromm household that it is needful to our story to relate. Nothing occurred to interrupt the dull monotony of sorrow. Claus had hardly intermitted his search day or night; and Leitner, Nussbaum, and Bleichroder had aided all they could by making inquiries and investigations in every direction they could think of: but all their efforts were alike vain. The first excitement occasioned by the incident had somewhat subsided, and those neighbours who had at first sympathized with the Professor, now shrugged their shoulders, and were not slow to intimate that they thought him not *compos mentis* to be neglecting his work in order to continue his search for one who had evidently become tired of him and his household, and had left without taking the trouble to say "Farewell." For it had got abroad that such was the explanation entertained by the police.

Six days had thus elapsed—six days that, in spite of every effort, had failed to reveal a single clue to the mystery. But in spite of the apparent hopelessness of further search, Claus relaxed none of his labours, but wandered about almost night and day, often aimlessly enough, till people began to think he was becoming crazed. He visited several of the villages round about, and made one or two visits to the larger towns near Kaiserstadt. He would, indeed, have gone to more, but for the lack of means. Bleichroder, the Wirth, and Leitner, all offered to advance him money for this purpose, but he declined their help, giving, as excuse, the uselessness of searching anywhere round about Kaiserstadt, his belief being that if she was not in the city, dead or alive, she must have gone right away. All the same the old man inwardly regretted the hardness of his fortune in regard to worldly wealth, as he had never regretted it before, seeing that he was so hampered in his efforts to find his adopted daughter by his impecuniosity.

That night, Leitner—writing to Fafner, who, being intensely interested in the drama that was enacting itself in the Prediger House, had begged Adolf to write to him each day if possible, so that he might be fully posted with regard to each fresh detail—said: "As to intelligence of the poor Fafne, I have nothing to tell save that there is nothing to tell. A curious incident, however, has happened to-night, which has disturbed the whole household. Annette and I had spent about an hour with Claus and Bear, trying to comfort and cheer them up, and were just about to go, it being close upon eleven o'clock, if not a few minutes past, when we were all startled by an unwonted commotion on the stairs. The first thing we heard was a great yell, subsiding into a series of howls; then a noise as of some-

body falling down-stairs. We rushed to the door, and arrived just in time to see a man come rolling down the stairs, and fall in a heap almost at our feet.

"'Mein Gott!' cried Zerafine, who had been first out, 'it is the piper!'

"The Professor turned him over the better to see his face. His hat had fallen off in his rapid descent, and it only remained to whip off his beard, which was a false one, to prove, in fact, that it was the flautist.

"'Du lieber Gott!' exclaimed the Professor, rising up and looking upon the fellow with a look of indignation, as if in doubt whether to kick him.

"Meanwhile everyone had rushed out, mostly in *dishabille*. Nagelmann appeared in his sleeping-gown and nightcap, and as instantly disappeared to put himself into more becoming habiliments. Frau Grossbein came hurrying downstairs, her usually ruddy face looking ashy white; and after her came, hobbling painfully with his crutch, the crippled Fritz, deathly pale, and trembling like an aspen.

"Several anxious faces appeared on the landing below, among them that of Frau Nussbaum, to whom Annette at once ran to communicate what had happened.

"Presently the large rubicund visage of the Wirth appeared among the smaller moon faces of the household, dividing and eclipsing them like a newly-rising sun. The piper, in the interim, had shown signs of returning consciousness, if he had indeed entirely lost it, as I somewhat doubt. For when he first opened his eyes, he gave a quick glance around, as if to take in the situation; he then reclosed his eyes, moaned, and, as it appeared to me, *foxed* going off again. I am the more certain he was foxing from the fact that the sound of the Wirth's voice saying, as he came upstairs: 'So you have got that thief of the necklace again, have you?' seemed to have the effect upon him of a galvanic shock. He drew up his limbs, and every muscle of his face suffered a spasmodic twitch. However, he gave no further sign; and if he was shamming, it was done so well that it would not have shamed Moliere's hero.

"Even the brusque, but not bad-hearted, Nussbaum was mollified at the sight of the poor fellow, pale, and with a small sprinkling of blood on his forehead—just enough to say he was wounded, and to beget sympathy in the female hearts about him, with whom a little blood covers a greater multitude of sins than much charity.

"We got him into the apartment, and various restoratives were applied, but the only one which proved effectual was the withdrawal of the Gastwirth. When he had descended, our Scapin quickly recovered, and was able to recount to us his adventure; which I shall now tell you.

"It appears, according to his own account, that he went upstairs to the garret above the Grossbein's floor to find a friend who owed him money, and who, he had been told, lodged there. He had selected that late hour because his friend, according to the accounts

given him, never got home until late ; and had donned his present disguise because of the little mishap he had had in the house a few days before, and which, he protested, was all a mistake, the necklace having stuck to his sleeve. Having safely passed the Grossbein's landing, he mounted the narrow stairs leading to the garret, which are said not to have been used by human being for nearly a generation, and tried the garret door, and finding it unfastened, entered ; whereupon—but let me tell you what then happened in his own words.

“ ‘I had no sooner opened the door,’ he said, ‘than I saw a ghost ; as I live, a ghost, dressed all in white, with great burning eyes, and at its feet a horrid beast like a hog, which bit my leg before I could get out and shut the door.’ ”

“You may imagine how Frau Bromm, Frau Grossbein, and the good Zerafine (Annette had descended with her father) opened their eyes at this recitation, and how Claus took it all in, believing implicitly in ghosts generally, as I think I have told you, and in the home ghost in particular. I should tell you also that the little manikin (*kleines mannchen*) Fritz, sat with pale face and dilated eyes listening to the whole story, and would not go to bed until the narrative was finished, and Scapin the Second provided with a bed, for the worthy Professor would not hear of his going away in his then state at that late hour. The great noble-hearted Claus !

“Thus the day's coil ended, if I omit a trial I had to my nerves. However, to round off the story, I may as well tell you that, having carried up the little Fritz to his door, and said ‘Goodnight’ to him and his mother, I was seized with the desire to mount the garret stairs, and behold what had terrified the player ; and having ascended half way, my courage failed me, and I—in short, came and set about writing this epistle. However, in the morning, I am determined to explore the garret.”

Next morning Leitner added the following postscript to his letter :

“In accordance with the determination above expressed, I early this morning ascended to the garret, and found the door fast ; so that that scoundrel, Scapin, told us a pack of lies to cover some other frustrated design, and we had not the wit to put him there and then to the test ; now it is too late, for this morning when the Bromm household arose, they found the bird flown.”

It need only be added to the above explicit narrative that the explanation of Goldwhistle's adventuring on the enterprise alone was that the nearer the hour approached for the undertaking, the more Raubvogel's heart—or whatever took the place of that organ in his incomplete anatomy—melted within him ; so that he was fain to counsel his companion either to give it up, or to go alone, pleading illness in excuse for his withdrawal. And truly he was very ill ; so ill, indeed, that a man would willingly put up with half a dozen agues, and a couple of sciaticas, in preference to one such fit, and a podagra to boot. How he sat in his watch tower, and trembled the whole night through, and had no feeling of comfort until, in the grey

dawn, he saw Goldwhistle issue from the Prediger-Haus, and stealthily make his way across to the Holy City—where the Owl opened the door for him, and received him with open arms—it is needless to tell.

Meanwhile the intelligence ran through the house that Fritz had again dreamed that Fifine would return all right ; and again Zerafine professed her full belief in his prophecy ; in which she was supported by Annette, who told Leitner, in confidence, that she was sure there was something in it, because of the unearthly brightness in the boy's eyes, as if he had vision of things others did not see, and understood matters hidden to most ; in which opinion there was much truth, for Fritz had fathomed twelve hours ago what had been a mystery to the entire house a whole week. Lying awake during the night, as he often did, he was constantly hearing a scuttling overhead ; and although he had heard of the ghost, and believed in it in a sense, yet he could not help thinking that it was a strange noise for a spirit to make. It seemed to him more like rats ; in fact, he had about put it down to the score of those rodents, when, on the morning of the sixth day since Fifine's disappearance, happening to be seated near the door leading on to the landing, he heard a similar scuttling noise outside. He went to the door to see what it was, but saw nothing. After a while he heard the same noise again ; this time he was so close to the door that he could instantly clap his eye to the keyhole. What he saw was something to wonder at. Crouching along, almost on his belly, was Beauty, carrying a roll of bread in his mouth. Fritz watched him till he approached the stairs leading to the garret, then opened the door, and stealthily crept on his hands and knees to the foot of the stairs. He heard the dog scrambling up the steps, making the scuttling noise he had previously heard, and then, when he reached the top, scratching at the door, which was almost immediately opened to him, and then closed again.

Fritz crept back to the apartment, and remained for some time musing.

Presently he heard the same noise as before, and peeping through the keyhole, he saw Beauty walk softly across the landing, and go downstairs. His determination was soon made. Getting his crutch he ascended the narrow garret stairs with a more stealthy tread than the dog's, and when at the top he gently scratched at the bottom of the door as Beauty had done. The first and the second time brought no response, but the third scratching was answered by a low voice within :

"Is that you, Beauty?"

Fritz held his breath, and hesitated what he should do. Then the query came again, and in a voice he thought he knew—

"Is that you, Beauty?"

Then he answered :

"No ; it is me—Fritz—dear Fifine ; open the door ; nobody knows but me."

The door was cautiously opened, and Fritz entered. There was Fifine indeed—but what a Fifine !

CHAPTER XVIII.

BEAUTY TO THE RESCUE.

When, on the night of her flight, Fifine ascended the stairs, after saying "Goodnight" to Annette at the door, she entered by the kitchen. Finding no one there, however, and hearing the Professor's voice in the dining-room, she at once opened the door, and was about to enter, when she saw a man sitting right opposite to her, the sight of whose face almost froze the blood in her veins. As we know, it was the flautist, otherwise Goldwhistle. The Professor, sitting with his back partly turned towards her, did not see her, and had not time to turn round before she had retreated, and closed the door behind her.

For a moment she stood, pale and trembling, supporting herself by an old-fashioned high-back chair. What should she do? There—closeted, as it were, with Claus—was the man at whose hands she had suffered so much, and to escape from whom she had dared so much—her husband! What was the meaning of it? Had he come to claim her? It must be so; else why had he taken the trouble to track her all that distance, and find out her hiding-place?

For the moment, the horrible conviction that she was found out, and that, as it seemed, she must again fall into her husband's hands, utterly paralyzed her, taking away both power of thought and of motion. Then succeeded a kind of delirium; it was as if all the thought and feeling which had nerved her to the effort to flee from him, and had sustained her in her flight, were concentrated in one intense sensation, combined of absolute abhorrence of the man, and of her feeling of the necessity of immediate escape—if necessary, of defiance. She was no longer the Fifine we have known, but a maimed, tormented, hunted thing; a stricken bird, a fawn, in which every other sensation is swallowed up in the instinct of self-preservation; and like one of these, with the cold-blooded huntsman close at hand, she fled.

Fifine had once, in a venturesome mood, ascended to the garret, impelled partly by a woman's curiosity to see what the place was like, and partly in sheer bravado to feel her nerves tingle with fear at being in the presence of a ghost. She found it a fit haunt for a ghost. Although it was day outside, little light came through the dirt and cobweb-covered windows. In the dim obscurity, she could perceive that there was an inner room, the door of which was ajar. The larger apartment contained a few articles of furniture, and much lumber. Fifine went far enough into the larger room to look into the smaller one, and to perceive that it also contained some articles of furniture. She was about to enter, when she was startled by a heavy sigh, and then two distinct knocks. A cold shudder ran

through her frame, and her hair seemed about to rise up. Her first impulse was to scream, and rush out of the room, but her feet refused to stir, and she felt as though about to fall. She had presence of mind enough to grasp the jamb of the door, and to exert her will to keep calm. But she trembled violently, and for a moment everything swam before her eyes. Then, collecting herself, she found her way to the door. She never told of her adventure.

When, after leaving the house on the night of her flight, Fifine found herself in the street without the slightest notion of what she was going to do with herself, the thought occurred to her that she might find a retreat, safe from molestation, in the ghost-ridden attic. She had crossed the street to the beginning of the Domplatz, and was standing in the shadow of the market pump. Involuntarily, as she thought of the ghost-garret, her eyes wandered upwards to where its narrow windows gleamed in the moonlight. At the same moment the storks' nest caught her eye. With the sight of it, and of one of the storks perched on the rim of the wheel whereon the nest was built, and flapping its broad wings, as though it had a bad dream—with this sight came a sudden revelation to Undine's mind; and no sooner was the revelation apparent, than the wonder was how it should not have occurred to her before, or to some one else. But our best thoughts and clearest inspirations are oftenest brought about by some sudden or unexpected excitement or stirring of the mind. Fifine's inspiration was that the storks were the cause of the ghost in the garret; and it was this thought that decided her to seek refuge there, as under the protection of a bird of Jove. The idea was no sooner conceived than it was put into execution; and, as good luck would have it, the fair refugee gained the retreat unseen. It would be hardly true to say that she entered the dark, ghostly chamber, without a tremor; but when once inside, with the bolt secured, Fifine felt safe and resolute. She groped her way to the little room, and when her eyes became accustomed to the dim light shed by the moon, she saw that it contained two or three old chairs, a table, and a sofa.

She sat down upon one of the chairs to reflect upon her situation. Scarcely had she been seated two minutes when there again arose that sound as of deep breathing or sighing which had so startled her on her former visit to the room. A feeling of awe came over her; but holding her hand to her heart, she listened. The breathing recurred at regular intervals. Then she heard again that double knock which had so frightened her before, but it was not so loud. Necessity made Fifine courageous. Stepping to where she could see the stove-pipe had broken away from the wall where it entered the chimney, she put her ear to the opening, and listened intently. In a minute or two, she was fully convinced that her surmise was right. She could distinctly hear the breathing of the sleeping storks, and an occasional noise as one or another of them moved or flapped their wings.

Being thus satisfied as to the nature of her near neighbours, Fifine inwardly blessed the storks, and resumed at once her seat and her

cogitations. But she was soon aware of the presence of other creatures besides Jove's birds. The mice, driven to their holes by the unwonted presence of a human being in their haunt, soon began to stir about again, making Fifine get upon the chair, and gather her skirts about her. When this position became tiring, she made a noise, and so frightened her little tormentors away. After awhile, however, they returned; then she had to scare them again with her harmless little foot. This occurred several times, until a new cause of anxiety occurred.

Some time after midnight, when all the house had lapsed into silence, Fifine all at once thought she heard footsteps on the garret stairs. She listened with palpitating heart and arrested breath. Her ears did not deceive her. There was some one on the stairs. It sounded like a light, stealthy step. Presently it approached the door, against which a gentle pressure was exerted as if to try it.

"Could it be he?" thought Fifine, her heart almost in her mouth.

She approached the door on tiptoe to make sure of the bolt. It was safe; but, with her hand on the door, she could distinctly feel a pressure against it. Then she heard a hard breathing, but, strange to say, it appeared low down—too low for a human being, unless he had got his ear to the bottom of the door.

"That would not be unlike him," thought Fifine; "he lowered to everything."

Presently there was a scratching at the door. Poor Fifine almost sank with terror. She hardly dared to breathe, so afraid was she of being heard. Perhaps if he heard nothing he would presently go away. But no; after a moment's silence the scratching began again, and the hard breathing. Then there followed something like a low whine.

"Gracious heavens!"—the thought came like a flash—"could it be Beauty?"

Down on her knees, with her mouth to the bottom of the door, Fifine whispered—

"Is it you, Beauty?"

The instant low whine and gentle scratching, left no doubt of the fact, and in two seconds the bolts were undone, and the faithful dog admitted. The poor brute threatened to betray his mistress by his gambols, so joyous was he at finding her, but a whispered word from her quietened him, and he remained satisfied for the present to lick her hands, as if he understood the situation perfectly.

What properly constituted human being would not have envied the hugging and fondling Beauty got when the door was again made secure, and Fifine had led her faithful servitor to the inner room. Huddled together on the sofa, Beauty stretched across his mistress's feet, and her hand lying upon his neck, they watched long into the night, with ears alert for every sound. No wonder the fugitive wife passed in sombre review the various buffetings to which fortune had of late subjected her, and ask herself whither the next turn of the inconstant wheel would carry her.

Presently, however, her lucubrations were interrupted in a very startling manner. A deep-drawn sigh of the troubled garret ghost, or of a dreaming stork, made itself heard with unwonted distinctness, causing even Fifine to start, but producing in Beauty such terror that his hair literally rose on end, while his trembling body made the rickety sofa shake. Such was the effect of the first sigh; the second drove him with a howl to the extreme end of the large room.

Fifine now trembled—but for her safety. Such an unghostlike din would, she thought, most surely betray her to the disturbed Grossbeins. She managed, however, by the exercise of a little patience, to calm Beauty's disquieted spirit, and to secure him in her arms.

"Fie, Beauty!" she expostulated; "I thought you were going to give me courage, and here you are playing the paltroun, and it falls on me to do the encouraging. Fie, Beauty!"

Beauty demurely licked his mistress's face, but showed by his ears that his spirits were still little above zero.

"Come, now," continued Fifine, "you are a sensible dog; just let me show you how foolish your fears are. See—smell! there is nothing there, nor there, nor there (taking him round the room, and showing him first in one corner and then in another). Now just put your nose there (holding his muzzle close to the hole of the stove-pipe) and listen. Are you satisfied that it is no ghost, but only a silly stork troubled in his sleep? perhaps dreaming of a good-for-nothing husband; who knows? Now, come along to the sofa, and let me have no more nonsense, or I shall have to open the door, and put you out."

For the remainder of the night Beauty behaved himself: he lay coiled up at Fifine's feet, untroubled by either ghost or bad conscience. His mistress's slumbers were not so calm. She dreamt that the storks were only birds in appearance, being in reality guardian angels. She was allowed to see their benignant faces, and soft child-like eyes. But, terrible revulsion! what was her dismay when, following out the wierd fantasy of her dream, she approached the chief of the tutelary spirits to render thanks for their protection, it turned upon her the face of her husband! and—unkindest cut of all—he was playing upon his flute! Any woman would have waked under the circumstances. Fifine did so with a start.

But though she rubbed her eyes, and made sure that she was wide awake in those organs, she could not get the dream out of her ears. The fluting still lingered like a bad tune. She chafed her ears, then boxed them, as one does when there is a singing in them; but it was of no use; the music was there still.

"Good heavens!" exclaimed Fifine; "it is no dream; it is he himself! No dream could fashion anything so fearful!"

As we know, she was not mistaken. It happened, however, that she had heard the chief part of her husband's flute-song in her dream, and only the finale and after-wail when awake.

The morning being already somewhat advanced, Fifine deemed it

advisable to send Beauty away, fearing lest his absence should cause additional comment, and perhaps give a clue to her whereabouts. She accordingly stealthily opened the door, and sent the dog forth, not, however, without cautioning him to mind what he was about. Taking his right forefoot in her hand—he the while sitting demurely on his haunches—she bade him steal downstairs gently, and tell no one where she was. “If they ask you,” she said, emphasizing her words with uplifted finger, “take them a smart run through the streets, and then home again. If you betray me, Beauty,” she added, “I am lost.”

Beauty licked her hand for reply, and though Undine listened intently for his footsteps on the stairs, she heard no sound.

Left alone, the poor girl became a prey to anxious thoughts. What did her husband's presence there mean? Had he tracked her, and made himself known, telling his own version of the story, and claiming his wife? And had the good people fallen into the trap, and become ready to deliver her up? She could hardly believe it: but then, how came he to be there, separated from her by but a floor and a ceiling—so near, indeed, that his flute tones could invade her sleep, and poison the source of her dreams?

The very terrors of her position blinded her to the sufferings of the good Claus and his spouse. She knew that they would grieve about her, but she was so full of her own anxiety and dread, that she did not comprehend the extent of the trouble she was causing; so true is it that our own cares may be so deep and absorbing as to render us incapable of thinking of those of others.

After she had grown weary of watching the turmoil of the streets—and it was only a few minutes before the pursuit and capture of her unworthy husband, so that, if she had remained at the window but a little while longer, she might have witnessed his ignominious flight; but, growing weary, Ffine betook herself to the sofa, feeling that it was only a question of a few more hours, when she must yield; for, though the whole garrison of her feelings was strong and resolute against capitulation, yet was there that arch lion-tamer, hunger, standing by her side and looking her in the eye, and telling her what it has told so many, that the loftiest courage cannot in the end withstand it.

“Oh, why should I be hungry now,” she thought; “in the old and miserable days I used to go without food for days, and feel no inconvenience?”

Just then there was a gentle scratching at the outer door. After listening for a moment, she said: “That is Beauty. Oh, Beauty, you will betray me if you come up in the light!”

Going to the door, and opening it stealthily, she found it was in truth, Beauty. He was quickly admitted, and the door closed and bolted after him. But what was it he brought in his mouth? For a moment or two he would not let Ffine see what it was, he kept capering about so, although making no more noise than if he had muffled feet. His mistress had to go down on her knees, and coax

him before he would come to terms. Then he laid his burden—the purloined Gudinger sausage—in her astonished lap; and while a gush of pleasure filled her bosom, he sent a thrill of terror through it, by taking a rapid turn round, elevating his hind quarters, bringing his neck and head to a level with the ground, and raising his muzzle like one about to give a howl of satisfaction, than which nothing could sooner have betrayed the secret of the mansard; because, though ghosts are known for the varied articulate and inarticulate sounds they can make, one was probably never yet known to produce a noise like a dog's howl of joy and exultation. But Beauty was too clever a dog to forget himself so far; he made as though he would ejaculate a note of great joy, but uttered no sound; being, in this respect, very different from Cockney holiday makers and tropical monkeys, with whom noise is the sole sign and expression of enjoyment.

Here one might make a learned and highly interesting digression on animal intelligence in general, and canine sagacity in particular; but as a highly intellectual organ has of late almost exhausted the subject, we must refrain; only remarking that, so far as we know, Beauty's exploits not having been communicated to its worthy editor, it might not be amiss to give them a place in the columns devoted to such learning. Although not to be compared to the writing cat, or to the other feline pets sacred to Nephthys and the *Spectator*, no one, when his record has been fully made out, will deny that Beauty was a dog of note, and worthy of a niche in the quadrupedal pantheon. Although he had not discovered the syllogism, and was not able to argue in barbera, yet could he render a reason satisfactorily to himself, as will be abundantly seen before we finish with him; in this showing the fallacy of the deductions of those amiable philologists who are of opinion that speech must precede reason; or, in other words, that you must invent words before you can put two and two together.

Now behold the fair Englishwoman seated on the sofa, making a hearty meal off the sausage, while Beauty licked his chops by her side, wondering, no doubt, what a circumstance his mistress made of so small a thing as a Gudinger wurst, which he had every confidence in his power to dispatch in a trice for any man's wager.

Having satisfied her present necessities, and given the provider of the feast a piece large enough to whet his appetite, Fifine put away a portion for morning, and then told Beauty it was time he went, but at the same time informed him that he might return later if he only took the precaution not to be seen. So he was dismissed, and the door carefully fastened after him.

As night came on, and pitch darkness descended on the garret, and the chill air clung about her, Fifine felt inclined to leave her dungeon, and dare the wretch who claimed to possess her, body and soul; but she was overcome by her old fear—a fear akin to that innate dread we have of reptiles; and she decided that it were better to die there of cold and hunger than to risk coming again within his

clutches; and so she listened, and watched, and waited, until the house grew silent below her, and the cathedral clock told to the full number of the disciples above, when, following the reverberating bell-tones as if they were hurrying doves, her spirit was caught up by the wings of the last ones, and carried through the ivory portals of sleep.

(To be continued.)

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

E. F. (Bath).—"Natural Religion" is out of print. It may be possible to get hold of a second-hand copy, but I do not know where. Isaac Pitman will appear soon.

J. W. H. (Saddleworth).—The photograph of the lady indicates that she has a predominance of the mental and motive temperaments, and must have had a high degree of the vital earlier in life. She is active, energetic, industrious, and does more work than she ought. She is cautious, looks far ahead, and provides for the future; is at times over-anxious, and liable to worry. She is ardent, earnest, and sincere. She is very tenacious, persevering, conscientious, and exacting. Has more than average native talent, originality of mind, judgment, wit, and imagination. Perceptive power and memory of details not good; is forcible rather than copious in her style of talking. It is about time she began to take life easier.

G. B. (Leeds).—You are ardent, earnest, frank, confiding, and open-hearted. Are comparatively amiable, kind, generous in your nature, and manly in your disposition; you can trade and labour physically, but you are better adapted to a profession, or some intellectual pursuit; you have a favourably-balanced intellect, with a predominance of the perceptive faculties. Have a good degree of ingenuity, taste, and imagination, and are very desirous of improving yourself, and are powerfully stimulated by your ambition to make a man of yourself, and you will probably succeed.

A. S. (Huddersfield).—Your organization favours harmony of action in all your powers of body and mind. You have a favourable degree of vitality, as well as nervous susceptibility. Health and length of days are your legacy. You have good blood, and a bland mind; all conditions favour a smooth and happy career in life. You have sufficient energy to be efficient and industrious, but not enough

to have undue temper. Are not cunning or timid ; are generally pliable in disposition, but can be firm, and even positive ; are much more inclined to love than hate ; are hopeful, respectful, and full of sympathy. You have a practical, sagacious intellect ; are good to entertain others. Can make a good missionary, teacher, nurse, or wife and mother.

J. C. S. (St. Leonards).—You must get an education, and if possible a calling or profession that will not require hard work—I mean physical labour. You are not sickly, but are not strong and robust, besides you do not like hard work very well. You have none too much force ; are rather too amiable. The base of your brain is not large enough for your top head ; you must encourage more positiveness and executive power. You are best adapted by nature to some scholastic or intellectual pursuit. You must have some special object of pursuit as a stimulus to action. Keep your social nature under control, and let your large Conscientiousness and strong intellect, guide and make a man of you.

D. A. R. (Dumfries).—The predominating powers of your organization, are the brain and nervous system. You must take good care of your body, so as to be strong—so as to be clever. You have great intellectual curiosity, and desire to see, know, and experience ; are wide awake to what is going on ; have ingenuity, and artistic, as well as scholastic ability. You are enthusiastic, have high hopes, and vivid imagination ; are versatile in manner, and can imitate and copy. Are very aspiring, and anxious to improve ; are full of spirit, and always in a hurry to consummate your desires. Have a good sense of sound, and might do well in music. Have good talents as a business man, but had better get a good education. Have good talents as a speaker, and will probably spend much time on the platform or in the pulpit.

D. B.—You need to go out to grass for a season. You are too nervous, are exercising your brain too much, and at the expense of your body. You need to pull up, think less, play more, get into the open air all you can. Throw away books and bookish things, and take all such exercises as stimulate the appetite, and invigorate the system. Eat the plainest and simplest food, avoiding fat, rich gravies, etc. Should also get plenty of sleep.

W. L.—This boy has an uncommonly good gift for mechanics, and it would be well to put him to some business in which he would have the opportunity of showing his ingenuity and power of contrivance and adaptation. He is better fitted for some mechanical occupation than for trade. He has a good general intellect, is quick to learn, hear, and has good understanding. His moral brain is well developed, and will show no lack of principle or honesty. He would also make a good teacher, or with the proper education he could develop into a writer for the press.

H. B. S. (Sarum).—Characterized for more than common shrewdness, ability to understand complicated subjects, and general grasp of intellect. Will not be so showy as a scholar, and will understand

subjects much better than she will appear to do at first. She is a good observer, has a fairly good memory, is neat and orderly, and has good arithmetical ability. Very cautious, and yet hopeful. Has large Conscientiousness and Benevolence, the latter making her very tender-hearted. She is quite sociable and very domestic. Has more than a common amount of energy and perseverance, and when she has work to do will not let the grass grow under her feet. Sometimes she shows temper, but it is quickly over, and she hurts herself more than others with her anger. Is frank and rather confiding, and has a trustful disposition, religiously as well as otherwise.

S. C. (W. Bromwich).—You are an oddity; few men are like you; you seldom act like other people, and you rarely act otherwise than like yourself. Are full of wit and humour, and could have got your living by amusing other people, if you had happened to take up that line of life. Are witty, humorous, gifted at imitation and mimicry, a glib talker, and full of a certain kind of imagination. You should practise for public speaking, and take the place of a public lecturer, or something of the kind. You might make a phrenologist, and thrive by the profession; but be careful to be always consistent.

F. W. H. (Sunderland).—You have much general intellectual ability, as well as moral power. There is no special criticism to make about you. If you come up to your phrenology, you will be a better man than common, if not a cleverer. You can succeed in almost anything you make up your mind to do if you go at it with a will. But you should "stick your stakes high," and not be contented with a mediocre position, or an easy every-day kind of life.


W. S. (Shrewsbury).—It will not be easy for you to keep straight. You have a great deal of impulse, and you will meet with a good deal of temptation of one kind or another. But you have intelligence and moral sense, and it will be your fault if you fall permanently. You are a good talker, and might make a speaker or preacher; but you need to train your powers carefully. You are best adapted to business, next to teaching, then to farming. You should make a good bookkeeper and accountant.

W. G.—You have a very strong natural character, and you should not be satisfied to be in any ordinary trade, and conduct a small business. You have superior intellectual abilities, amounting in some directions almost to genius, and it depends upon you to make them effective. You have, besides, great moral force, as well as physical vigour, and in a suitable sphere you could exert a powerful and extensive influence. In a sketch like this, one cannot do justice to you. You should study phrenology, if only to find out your powers, and how to turn them to the best advantage. There is the making or the spoiling of a good man in you.

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ISAAC PITMAN, INVENTOR OF PHONOGRAPHY.*

 HIS organization indicates two very striking features, one is a tenacity of life, power to endure more continuous action and expenditure of life and nervous force than most individuals. It also favours great tenacity of mind, unwillingness to give up a purpose or plan when formed, a disposition to persevere and endure until perfection is attained. He should be characterized for clearness of mind. He has a high state of the mental and nervous temperaments, which gives an unusual degree of mental activity. He is in his element when employed intellectually but is never satisfied with his attainments. Whatever he does opens the way to do more, and better. His order is very prominent, and has a powerful influence on his entire character; it would dispose him to be methodical and particular in arranging and simplifying, which, joined to his other faculties, would give him superior abilities to organize, arrange, lay out work, and do things according to some system. He is almost too nervous, too nice and particular. He finds it difficult to work with others because they are liable, in his estimation, to be careless and imperfect; hence, he would prefer to do everything himself. He is close in his observations when he pays attention to a subject, but may be a little absent-minded sometimes, and have hobbies, and be absorbed in certain directions. Language appears to be large, which would give him a great command of words, and enable him to express himself with unusual accuracy. He could distinguish himself in the languages, or in grammar, or as a critic of language used by others. As a speaker he would select words with great care, and so present his ideas that

* This delineation was written by Mr. Fowler without any knowledge of the person. The portrait was sent to him to New York, where he at present is, the only note accompanying it being that the person it represented was an educated man.—ED. P.M.

they would be clearly and distinctly understood. The intellectual brain, as a whole, is largely developed, and gives him superior power as a student. Whatever studies he pursues he will wish to make himself proficient in that department. As a teacher he would be very careful not to allow his pupils to go faster than they understood. He has great intuitive power, has capacity to analyse, criticise, discriminate, and see differences and resemblances. He may be witty, but his wit is more the result of the action of comparison and intuition than of mere mirthfulness of mind. His moral brain appears to be fully developed, and would give elevation of mind. He cannot enjoy himself in an animal physical way; he will not be likely to mix up with men in wordly pleasures or animal enjoyments. His head, being rather broad, indicates considerable industry, energy, efficiency, spirit, and resolution. The physiognomical indications are favourable to an affectionate and domestic disposition, although, as a general rule, he prefers to devote himself to study and intellectual pursuits, and to go with a choice selection of company, rather than into general society. The entire organization indicates that he is one by himself, that he has an individuality of his own, and that he is not easily imitated by any one else.

Isaac Pitman, the inventor of the most facile system of shorthand, and the leading advocate of spelling reform, was born on the 4th of January, 1815, at Trowbridge, Wilts, where the poet Crabbe was rector. He was the third of a series of eleven very remarkable sisters and brothers. In early life he was a clerk, then he became a schoolmaster. Having learned Taylor's system of shorthand, he set himself to popularize it, then to improve it, and next, to invent a more perfect system. The art has conferred such blessings upon mankind that Mr. Pitman may justly be called the world's benefactor. The story of his early life, and of the origin of phonography, is extremely interesting, and we cannot do better than reproduce the sketch given by Mr. Pitman himself at a meeting held in Manchester, in 1868. He said:—

“From a very early period, from the age of twelve years, I read extensively. One of the earliest circulating libraries was established in the town in which I then resided, and my father became a subscriber. I went regularly to the library for fresh supplies of books, and thus read most of the English classics. I think I was quite as familiar with Addison, and Sir Roger, and Will Honeycomb, and all the club, as I was with my own brothers and sisters. I did not expect that I should ever be an author; in fact a shorthand author is

scarcely to be called one. However, I have appeared in the literary world in this sense; and I may tell you that when reading the 'Spectator' at that early age, I wished that I might be able to do something in letters. From that period up to about the age of sixteen, I continued reading, and had become familiar with the language of books. I had had to give to the words I met with in books, and that I had not heard in conversation, a mental pronunciation of my own. At the age of about sixteen or seventeen I went through Walker's Pronouncing Dictionary, for the sole purpose of ascertaining what these dumb symbols that I knew so well



in books were to be called. This was the first step towards the production of a system of phonetic shorthand, although at that time I did not write shorthand. About a year after, with that instinctive love of knowledge common to boys, I began to study shorthand. I saw it would be a great advantage to write six times as fast as I had been accustomed to; and I borrowed a book, read it through, copied the alphabet and 'arbitrary words,' and have written shorthand ever since. I was then about seventeen. The system I learned was Taylor's. It is the best of the old systems. At that period there was no cheap system of shorthand in the world. The cheapest was 3*s.* 6*d.*, and all previous systems had been half a guinea or a guinea. I as a boy did not think it worth while

to spare so much pocket-money, and I therefore borrowed a book of my cousin, instead of buying one. I wrote Taylor's system (Harding's edition) for about seven years, and though it is a very lengthy one, I was, after four years' practice, able to report a slow speaker verbatim. That brings me to about the age of twenty-four. I was at this time teacher of a British school, and I wished that every boy in the kingdom should have an opportunity of learning shorthand, which he could never do so long as the book for teaching it was sold at 3s. 6d. I knew that a little manual could be got up for two or three pence, quite sufficient for the purpose, and I drew up one to be published at 3d."

While he was thus qualifyinig himself for the invention of phonography, by studying the English language, the immediate stimulus to his inventive powers came—as his brother, Ben Pitman, of Cincinnati—has pointed out, through his habit of reading the Bible, and referring to its parallel passages. Having an ardent love for truth, and "intolerance of error," he undertook, as a labour of love, the examination and revision of the 500,000 marginal references in Bagster's "Comprehensive Bible." This voluntary labour occupied his leisure time for nearly three years. It established a friendship with Mr. Samuel Bagster, who suggested that instead of publishing an abridgment of Taylor's shorthand, which Mr. Pitman proposed, it would be better to invent a new system. Thus the desire for improvement, reverence for truth, and hatred of error, with a laudable ambition to place shorthand within the reach of every school-boy, formed the several strands in that providential cord which drew him into the invention of phonography. The first edition was published in 1837, and shortly afterwards Mr. Pitman began a lecturing tour, visiting periodically the principal towns in the United Kingdom. Crowds of persons attended his lectures, and great numbers set to work to master the principles of an art so eloquently expounded. His system has gone through many editions, necessitated by improvements which have suggested themselves in the development of the system. Some of his followers have been too conservative to admit that the changes are improvements, and they continue to use the edition in existence when they commenced the study. The system is almost universally used; and Mr. Proctor, the astronomer, declares it the best, the most easily learned, and the most scientific. Mr. Pitman is, moreover, a spelling reformer, and in the advocacy of reform, he has spared neither time, money, nor the application of great mental powers. That some reform in spelling is needed, is admitted by all, and phonotypy is

warmly advocated by Professor Max Müller and other eminent scholars. As, however, the public are not yet prepared to accept Mr. Pitman's radical system, he has adopted a policy of compromise which has been productive of good results; and by proceeding gradually, he hopes to educate the public to recognize a philosophical system of spelling, in which each character shall represent one sound only.

Mr. Pitman has been an extraordinary worker, and upon very simple fare. "I intensely enjoy life and labour," he tells us, "and require nothing beyond the labours of the day, and the walk to and from my office, which is a mile, to induce refreshing sleep. I keep up my life-long practice of retiring at ten o'clock, and being at my desk at six. About three years ago I adopted the custom of taking a siesta for half-an-hour after dinner. It is well, as Milton observes, to give the body rest during the first concoction of the principal meal. The usual summer visit to the sea-side was unknown to me till I was fifty years of age. From 1837 (the date of the publication of 'phonography') to 1861 (the date of my second marriage), nearly a quarter of a century, I worked from six in the morning till bed-time, ten o'clock, without an intervening thought of a holiday. I felt no want of a temporary respite from labour, because I took no exciting food or drink, and I should as soon have meditated a breach in the Decalogue, as a breach in my daily round of duties by idling at the sea-side. In 1861, I relaxed, and commenced the practice of leaving my office at six in the evening. At the same time I commenced visiting the various watering-places, or going to the Continent in the summer for four or five weeks. This recreation I have taken more for the sake of my wife and two sons than from any feeling of necessity for it on my own part."

His immense power of work he attributes partly to his abstinence principles. He is not only a teetotaler and non-smoker, but also a vegetarian. From alcohol he has been an abstainer nearly all his life. On becoming convinced that intoxicating drinks were unnecessary and injurious, he became a total abstainer. In 1838, however, he was advised to take a glass of wine per day as a tonic, and as a remedy for dyspepsia, which then began to trouble him. After obeying the medical prescription for a year or two, and finding no relief from it, he gave up wine. Dyspepsia disappeared, and has never visited him since. At the same time he abandoned the use of flesh, which he calls the "brandy of diet." The circumstances under which he was led to become a vegetarian are these. A number of fowls were kept principally for the sake of their eggs, and occasionally one of them was doomed

to the pot or the spit. The boy who did the killing business declined the job when it came to the turn of his pet fowl to be killed. Requiring obedience to orders, the lad was directed to hold the fowl's head upon the block, and then Mr. Pitman aimed a blow at it with the hatchet; but his unpractised hand only half did the work, and the bird with its partially severed head flew about the yard! This unpleasant business of killing "our poor relations" set Mr. Pitman thinking, and the questions arose, "Is it right to require another person to do what I do not like to do myself?" "Is flesh meat necessary as an article of food?" His answers being in the negative, he has never eaten flesh meat since, yet he has had sound health, and believes he could not have done an equal amount of mental and physical work upon a "mixed diet."

The latest public effort of Mr. Pitman was to obtain a Free Library for Bath, but it was unsuccessful. A vote of citizens refused to accept a library of 9,000 volumes, and some commodius freehold premises adapted for a library of 100,000 volumes, which were offered to the city on condition that the inhabitants would pay a half-penny rate to support it. Of the books that constituted the library referred to—the Bath Public Library—2,000 had been presented by Mr. Isaac Pitman. When this library was dissolved, some of the books were returned to their donors, and others were sold to pay liabilities which had been incurred.

ON THE CORRESPONDENCE AND RELATION OF THE ORGANS OF THE BODY WITH THOSE OF THE BRAIN.

Many years ago when the science of phrenology was originally propounded, and when it attracted much attention and interest, the present writer was one among those who took up the subject with great ardour, believing it to contain a basis of truth, which, if judiciously developed, might lead to many useful discoveries.

Mr. Combe's work, and others on the same subject, were carefully studied, and numerous measurements were made on the heads of various known individuals, but after a time the results were not found altogether satisfactory; the mapping out and nomenclature of the various parts of the skull seemed to be incorrect, more especially the latter, which was often very misleading. It was not altogether surprising that this should have been the case, for the subject was quite a new

one, and required a long period of study before it could be put forward as an established science.

However, with all these defects, there still appeared to be a great foundation of truth in the system thus brought before the world; for it could not be denied that individual skulls differ widely one from another.

Why, we would ask, should this be so? Was it likely that such a variety of form should exist without some efficient cause?

Let us endeavour to show that cause. It is generally conceded that the impressions formed on the different organs of the senses, such as Sight, Hearing, Smell, &c., are carried up to the brain, and occasion what are called our *perceptions* of things; it is, therefore, probable that there should be a special seat in the brain immediately connected with these outward organs, and in their vicinity, for which reason the phrenologists have so placed them under the designation of the *perceptive* organs.

As, however, many persons might challenge the idea of an exact spot being appropriated to each particular development, it will be better, until the subject has been more fully studied, to confine the mind to the general idea and location of these perceptive organs, which the phrenologists, as just stated, have placed in the lower part of the front lobe, in the neighbourhood of the external organs, through which, by means of the nerves, they communicate with the brain.

It will be found, on a little reflection, that to obtain a united idea of any object as an *entity*, various percepts must come into play. Take, for example, a red ball, place the same in sight of a child; to enable him to get a clear comprehension of it the rays of light must have entered through the eyes, and have communicated to the brain its form, its colour, its size, its locality, and by the aid of touch, its weight also: after the first months of infancy, however, the child will learn to appreciate this latter quality without the aid of touch, though in the first instance he would require its assistance to enable him to do so. If more objects than one are presented, then the perceptions of number and order will have also to be taken into account. It will thus be seen how many perceptions must be brought into play to enable us to form an idea of one single object, these, when united, form the centre organ, to which the phrenologists give the name of *Individuality*; the special qualities before mentioned, being component parts, are placed on each side of it. Besides the perceptions derived through the eye, we have also those obtained from the senses of hearing, tasting, smelling, and

feeling, all of which are conveyed to the brain by means of the respective nerves, which proceed from their external organs. After having obtained this knowledge and appreciation of outward objects, we then begin to see them in their relation one to another; in order, however, to bring about this result other organs are called into action, which, by uniting with some of those derived from the above named senses, form a combination which results in the idea of change and movement; hence, the centre organ placed over Individuality is called Eventuality. These other organs just alluded to are named by the phrenologist, Locality, Time, and Tune, and are placed at the sides of the centre organ. By means of these organs, Locality and Time, we perceive that many objects are not always stationary, a change often takes place in their relative positions: they have moved from their original locality to another, and they often continue to do so, thus giving us an idea of motion; this continued movement takes time, and we then begin to mark its intervals, and to have an appreciation of that change also through the respective organ which bears its name. The name Tune, given to the last of the three organs, is decidedly an inappropriate one, as it is too limited in its scope; for as it must derive its impressions through the ear, it naturally perceives all kinds of sounds which result from the vibration of the air, caused by any external object, and which vibration, by striking on the tympanum of the ear, is conveyed to the brain, which gradually learns to distinguish the various qualities of sounds, whether, occasioned by musical instruments, the noises of animals, birds, and other natural objects, or the language of men; we, therefore, think that Sound would be a more suitable name for the organ than Tune.

As an example of the perceptions of change and movement, which the above named organs take cognizance of, we will suppose the case of a shipwreck, where we see the vessel itself tossing on the billows; we hear the roaring of the wind, we see the ship bending under its pressure, the spars broken and dashed around, the hurrying about of the sailors, the terror of the passengers, the lowering of the boats, the struggle to get into them, and finally the ship itself swallowed up by the waves. All this implies movement and change, and constitutes an event.

Having thus obtained all these ideas, and their relations, as derived from the perceptive organs, another combination has to be formed before we can properly connect them, or distinguish the bearing which they have one upon another: we have to compare, to dissect, or analyse, to discover what

brings about the one or the other combination, and what will result from it; in other words, the organs of Comparison or Synthesis, of Wit or Analysis, of Causality or Deduction have to be called into action; the reasoning faculties, as they are generally called, thus come into play. If these combinations are traced back, it will be found that they are all formed by simple facts put together in different relations, in the same manner as in language, where we have first the alphabet, then the union of some of the letters into words, afterwards the formation of the words into smaller or larger sentences, till by these simple elemental means the most abstruse subjects can be propounded and elucidated. So, likewise, we rise from the first perceptions, the A B C of the infant, through the whole alphabet of objects, till by their combinations we attain, after years of experience and exercise, to the highest powers and developments of which the adult human mind is capable.

But are we to stand still here and go no farther? Only a small part of the brain has had, as yet, its work apportioned to it, viz., the front lobe; what is to become of the large remainder? We have up to the present only dwelt on the facts obtained from the outer world working, so to speak, like a calculating machine; we have now to deal with a different order of phenomena, derived more from ourselves, from the inner man, in contra-distinction to the previous ideas which are derived specially from outward objects—we allude to the emotions or sentiments.

These sentiments are located by the phrenologists in the coronal region of the skull, to which arrangement we adhere, though not always agreeing in the nomenclature. The former sets of ideas, as we have endeavoured to show, are obtained through the medium of the external organs of the body; why should not the emotional be in like manner derived from the internal organs of the body? These latter differ very much from the previous ones in being much less precise; they are more vague in their perceptions, not being derived from outward objects which appeal to the senses; they are felt rather than seen, they arise, as it were, out of ourselves.

The idea of the sentiments being derived from the internal organs may at first appear startling; but any one who observes, will soon perceive how, in the emotions of hope and joy, the heart and lungs are dilated and agitated; how in fear and sorrow they are depressed, and almost paralysed; how in the one case the countenance is beaming, in the other, pallid and sunk; and they will soon recognize how intimate is the relation between these inner organs and the sentiments they give rise to.

People, in common language, often speak of a hard heart, or a cold heart, of bowels of compassion, of being warm-hearted, lion-hearted, faint-hearted, &c., and even of being white-livered, splenetic, &c., all which points to a natural feeling on this head, a sort of instinctive recognition of the fact. What strange sensations pass through the frame while watching the progress of a shipwreck, or of a fire, and even while reading an account of these events! Who has not felt a creeping sensation along the spine while hanging over a precipice, or looking down from a great height? All these things would seem to point out some very intimate relation between the various parts of the body and the brain.

But, it may be said, certain outward objects are presented to the mind, and produce these effects; this, however, cannot be the cause of the sensation, for they are presented, in the first instance, as mere facts; it is only by their connection with something in ourselves that emotions are experienced, and these are only gradually developed, for children do not in general exhibit them at a very early age; time and repetition are required to bring them out, as is the case with the use of hands, feet, and other outward organs. Children are often very cruel themselves, and look on with perfect complacency on tortures inflicted by others; for they do not yet feel, in a sentimental sense, they are only cognizant of facts.

If it be said that a part of the brain matter may be set apart for these emotions, we agree to the statement, but with the condition that there must be something else to act upon it; for the brain in itself is, we think, a mass ready to receive impressions of outward objects, and inward sensations, which are, as it were, imprinted upon it. The brain of a child has, probably, but few convolutions; these naturally become more numerous and more deeply imprinted as additional facts and sensations are presented to it and as the years roll on to a more mature state of manhood.

The internal organs have, it is true, a sort of independent existence, with separate nerves adapted to bring about and preserve their individual being, in the same way that the eye, the ear, and the other senses have; but apart from these, are the nerves which carry up the impressions received by each organ to the brain, and which are all of a different order, one from another, and convey a different message to the particular part of the brain to which they are referred. These, again, communicate one with the other, for the brain is the grand centre to which all converge; thus, by the combination of the perceptive, reasoning faculties, emotions, and muscular active powers, are brought about all the results which constitute

animal life. The differences which are to be found in this life, and the superiority of some orders of beings over others, proceed from the varying parts and proportions of the organization in each case, and the degree of perfection of each particular organ. The lower order of animals will have only a few percepts, and active faculties, sufficient to enable them to carry on their limited existence, but as the scale rises, so do these increase in number and power till, gradually, the intellectual and emotional faculties are superadded, and the brain matter of the skull is proportionately increased; this combination will be found, specially, in the human race. But, though, in man we shall find the highest general development, yet, in many animals, and in the lower types of men, some organs will be found superior. An eagle has a sharper and longer sight, a dog has a keener scent, and other animals have the sense of hearing more perfect than in man. This difference is also to be observed in savages, who, having to obtain their food very often by the chase, and to protect themselves from wild animals and other enemies, are generally very keen in their senses; the active powers of these, and also of wild animals, are also generally superior to those of cultivated men. The brain development in these cases would be naturally greater in volume in the particular portion of it with which these faculties correspond, viz.: the base of the brain in the front lobe, and the cerebellum, with the portion of the cerebrum, which directs animal action in the back lobe. In like manner, though most animals have more or less similar sets of organs, such as those of the outward senses and the internal viscera, yet their number, proportion, and form must be greatly varied so as to fit them for the life they have to lead, whether in air, water, or on land; their active locomotive members will also differ one from another, for the same object and end, and the form and position of the brain will naturally be modified to correspond with these changes. Sight, smell, hearing, taste, touch will each, separately, be more or less developed as the surrounding circumstances demand their employment; and in like manner the stomach, bowels, heart, lungs, liver and other internal organs will be differently proportioned as one or other is more needed for the immediate habits of the individual; the form of the body, the temperament and character will also be modified in the same manner.

In order to ascertain these varied proportions, and the habits of life which correspond to them, a great deal of study is demanded, but we can, with tolerable ease, observe the differences in the form of the skull between a dog and a cat, for example, and compare them with the characteristics of each.

In the former case we shall, generally, find a liveliness of spirit, and a confidence in others, which the latter does not display; and the head of the one will be found proportionately high, while the latter is, usually, very broad and low; the cat showing wariness, caution, and mistrust; in the case of the dog, the heart and the lungs are likely to be more developed, and in that of the cat the liver will, we think, predominate. Animals who live on the fruits of the earth, on grain and herbage, will be naturally, as a rule, of a less fierce character than those who prey on living animals, excepting, when they have to defend themselves or their young.

Here, again, the proportions of the viscera are likely to be modified; the stomach and intestines will, probably, be more developed in the vegetable eaters than in the carnivora.

The perceptive organs will also vary in intensity as they are more or less necessitated by the individual's mode of life: a graminivorous or herbaceous animal or bird, finding its food more at hand, will require only patient search, while one who lives by prey must have all its senses alert, and its active powers in readiness to pounce upon it when the occasion offers.

But these comparisons might be extended *ad infinitum*, for we believe that every variety of outward form of the body corresponds to a similar one in the brain, and in the interior organization; the more we observe the more we feel sure that this general harmony will be maintained, although there is so great an individual variety. Many things which at first sight appear to be identical will, on closer examination, be found to differ. Take, for example, a hand; people, in general, look upon it simply as such, but it will be found that no two hands are exactly alike.

The same difference will be found in every other form and feature, so much so, that among the millions of people who inhabit the earth no two persons are exactly alike, though they all possess the same order of features and general form.

But though none are exactly alike, yet, among them, there are sufficient resemblances, in certain cases, to form types in which the general correspondence is greater among them than in others, though they still retain their individual differences. The Negro race, the Tartar race, &c., are examples of this.

Now, when you consider the immense number of external and internal organs which there are in a human being, the great variety which exists between each, and the different proportions which they bear to one another, it will not be thought surprising that such distinction of form and characteristics should arise, especially, as these very varieties are still more modified by the adventitious circumstances of the air

we breathe, the climate and soil, the temperature, the quality and the abundance or scarcity of the food we eat, the beings by whom we are surrounded, and endless other differences which act and re-act on our bodies. Every one knows how many changes can be rung on a few bells, on a few notes of music, on the letters of the alphabet, even, by the modifications of colours from a few simple ones: how much more then may these changes be expected to take place, when there are such innumerable elements, simple, indeed, in their beginning, but multiplying by their combination.

HISTORY OF PHRENOLOGY IN CALCUTTA.*

In the year 1825 there was a Calcutta Phrenological Society, instituted on the 25th March, of which Dr. Abel was the president, Captain W. N. Forbes was the vice-president, C. E. Egerton, secretary, S. Smith and Co., treasurers. The managing committee consisted of the president, vice-president, treasurers, secretary, Mr. J. Mellis, M.D., Mr. J. M. Dove, Mr. W. Carr, and Mr. D. Drummond. The Trustees were president, vice-president, treasurers and secretary, and figure castors Messrs. W. Mandy & Co. The object of the Society was to investigate phrenology by means of meetings, at which phrenological discussions might take place and communications be made; and by the collection of phrenological works, skulls, casts, and every kind of phrenological documents and illustrations. This Society, if we are not misinformed, was presided over to the last by Dr. G. Murray Paterson, No. 15, Royal Barracks, Fort William, in Calcutta. Mr. Drummond, in his "Objections to Phrenology," says: "Under very promising auspices it was established, and included several gentlemen of literary and scientific distinction." Its numbers, however, did not increase, as was at first anticipated—not because the subject did not excite interest, but only not sufficient interest to metamorphose apathy into exertion. He also says:—"There are many talented individuals in Calcutta, but the division of caste, which is almost as strictly observed by Europeans as by Hindus, is destructive to every attempt at general association; added to this far other matters than intellectual improvement are the *alpha* and *omega* of Indian existence. The Society used to hold its regular meetings; after July 1827 the Society met only twice." Such was the result of Dr. G. Murray Paterson having allowed metaphysical discussions, instead of purely phrenological ones,

* Reprinted from the Catalogue of R. B. Doss, Phrenologist, of Calcutta.

being carried on in the Society. The objections raised by David Drummond, who had a school in Calcutta, commonly known as Dhurumtollah Academy, were read as addresses to the Society, and replies to them by Dr. G. Murray Paterson used to be published in the *John Bull* from time to time, and subsequently, collected together and printed in the form of a book, "Objections to Phrenology," by Mr. D. Drummond, in the year 1829. He says in one place, which is too rich to pass over:—"Truth is not of easy acquisition. Her visits are few and far between, and even the holy light is vouchsafed to man. Seldom are its glories permitted to expand until, after much effort and many observations, the heavy clouds of prejudice are finally dissolved. Truth, however, has nothing to fear from candid opposition. Tyranny may silence her voice—her votaries may become her victims; but, like the gold of Ophir, she comes triumphantly forth, and with sevenfold refinement, from every furnace of investigation." Much such is the case with the discoveries made by Drs. Gall and Spurzheim, which have thrown a world of light on the workings of the human mind. It appears there was a good deal of controversy in Calcutta at the time, and appeared in the newspaper, *John Bull*, under the signatures of Dr. Paterson, Mr. A., Mr. B., and a phrenologist, with ample quotations from the works of Drs. Gall and Spurzheim and Mr. Combe.

On Saturday, the 7th of June 1845, at the School Society's school premises, a meeting was held by Hindu, Mussleman, and Christian young gentlemen, thirteen in number. Kally Kumar Dass was voted to the chair, and he in his address proved to the satisfaction of all present, that the science of phrenology had a peculiarly strong claim on the attention of every man; and the second Calcutta Phrenological Society was established from that day with object to pursue a methodical course of study in phrenology. The Society used to hold its weekly meetings, when lectures on phrenology used to be delivered by Kally Kumar Dass, the president, and on physiology and anatomy of the brain and skull by Nundo Lall Gangully, the vice-president. The lectures were published in the English weekly newspaper, called the *Hindu Intelligencer*, conducted by a native gentleman. The English papers declined to publish them; on the contrary, now and again scurrilous articles appeared in them, much to the satisfaction of the editors and their numerous readers. The members were all students of colleges and schools, and out of their own private pocket-money, they used to contribute towards the maintenance of the young Society. It had no permanent habitation, and the consequence was that meetings

were often held at the members' private residences, or places lent by friends for the purpose. The Society was able to scrape up a few rupees, which were remitted to the late lamented George Combe for books, &c., and he thus noticed it in the *Edinburgh Phrenological Journal*, No. XCIII. New Series, No. XL. for October 1847, page 459, under the head Intelligence:—"A Phrenological Society, consisting of Hindus, has lately been established in Calcutta, and in August last included fourteen members, of whom two are schoolmasters, four belong to the medical profession, and the rest are engaged in mercantile pursuits. They have sent a remittance to Edinburgh to be expended in purchasing a suitable collection of casts, books, &c. We wish them much success, and shall be happy to learn that the study of phrenology becomes general among the Hindus." The books and casts were forwarded by him with an autograph letter to the president, the late lamented Kally Kumar Dass. With these, the purchases made in the country, and the presents received from members and friends, the Society was proud of having a good and useful library, strong enough, aided with the bust, to impart a thorough knowledge of the most valuable science of phrenology to the beginner. The members, it is worthy of note, commenced their work with zeal and assiduity, and the two professors fought their battles well in the field, and paid every attention to the advancement of the Society. The vice-president, Nundo Lall Gangully, died at a comparatively early age, to the great grief of the members and loss to the Society. His mantle fell on Nil Comul Mitter, and the Society rejoiced at such a happy and worthy selection. This gentleman put his shoulders to the wheel with no less strength and vigour, and delivered some valuable lectures at the Society's regular weekly meetings. The Society existed for several years, and, as fate would have it, the time of the greater portion of the members was engaged otherwise as they commenced life, others went up-country, where they exerted themselves to establish societies for the culture of science, but with no effect; and the remaining few were not sufficient to carry on the work. It is to be said that since the establishment of the Society, there was only one new member gained. So in fact, the limbs of the Society were scattered to the four winds, and thereby it died a premature death, when it was nine years old, and that in the year 1854, to the loss of the community at large.

We glean from the advertisement in the Bengali translation of "Phrenology, by Radha Bullub Doss," published in the year 1850, that the late Kally Kumar Dass started the *Pamphleteer*,

a monthly journal of phrenology, sciences in general, literature, and arts. We also observe therein that the Calcutta Phrenological Society was then in full working order with the president, Kally Kumar Dass; vice-president, Nil Comul Mitter; secretary, Nobin Chunder Bose; treasures, Nil Comul Mitter; and a managing committee consisting of the above office-bearers, and Raj Kumar Dass and Radha Bullub Doss.

Raj Kumar Dass, with the fire that was kindled in him in the cause of phrenology, had been advertising himself in the Calcutta newspapers from time to time as a phrenologist, and giving to the public the results of some of his wonderful examinations of heads that he came across in the course of his practice. This was in the year 1873. He has still a studio in Amherst Street, where any gentleman who may wish can have his head examined by that worthy practical phrenologist on payment of a moderate fee.

On the publication of the Bengali translation of "Phrenology, by Radha Bullub Doss," it drew the attention of Pundit Goury Sunker Bhattacharji, the editor of the then influential Bengali newspaper *Blaskur*, who invited him to examine his head, and having satisfied him, he published an article in his paper, which had a very wide circulation, and thus called the attention of the native public and some of the Bengal Zemindars (landholders), and other gentlemen of standing, who felt curious about this novel science, and willingly gave trials by having their own and their friends' heads examined, which pleased them much, and they, one and all, invariably attested to the correctness of the examination, to the glory of the science, and the satisfaction of the examiner and the examinee.

Latterly, at the end of 1882, and at the beginning of 1883, a gentleman under the name W. Ecydrof, agent to the directors of the Phrenological Institute, advertised himself in the Calcutta newspapers, *Indian Daily News* and the *Indian Mirror*, as practical phrenologist. The editor of the latter submitted himself to his examination, and publicly acknowledged in glowing terms, in a leading article in the issue of his paper of the 4th February 1883, as to the correctness of the able gentleman's analysis of his character, and said "that those who doubt might try personally."

It may be mentioned here that some years ago a European gentleman, Professor Hume, came to this city and delivered a couple of lectures or so, in the Town Hall on phreno-mesmerism, but the public patronage was not sufficiently encouraging to the professor to continue his course, and give the benefit of his knowledge to the people of the city, who lost a great chance of

knowing the mysteries of nature as revealed through phrenology and mesmerism. These lectures were attended to by a limited number of ladies and gentlemen; the lecturer operated on a female patient, and brought to action the organs of Secretiveness, Benevolence, Veneration, &c., much to the delight of those present on the occasion. It rather surprised the audience, but they were not all of the same opinion. Some went so far as to say, it was a hoax, though the professor fully explained the principle on which the action was produced, and how it acted on the human brain and manifested through the mind.

Our much respected townsman, Dr. Mahendra Lal Sircar, who is well to the front in the intellectual world, read a lecture on the physiological basis of psychology, in the Howrah Canning Institute in April 1870, and published it in parts in the *Calcutta Journal of Medicine*, conducted by him. It is not an unworthy production from the pen of such an able and learned gentleman, who, it appears, has taken much pains in clearly putting before the public his own views of the mental science, which he published, revised, in a pamphlet form. It is much in accordance with the teachings of Dr. Gall and of his co-adjutor, Dr. Spurzheim, the fathers of phrenology; but the lecturer calls the name phrenology a misnomer, assigning reasons for his doing so. Speaking of the period in which Dr. Gall lived, he says, in page 8, "that physiologists up to his time had agreed that the brain was the seat or the organ of the mind, but they did not suspect that the faculties of the mind had each a seat in a definite area of the cerebral substance." In page 9 he says: "This determination has been based upon pure observation, and must remain unshaken for ever." And again in page 11: "Nevertheless, their discovery was not the less valuable nor the less true on that account." Innumerable other passages could be quoted which would go to support the theory, that he has some faith in phrenology; and who could deny that he does not believe in it? It can safely be mentioned that if he could devote, with his mighty philosophical head, a little time to unveil phrenology, he would be of great assistance in furtherance of its noble cause. He has already gone to a certain extent, and it is necessary that he should now go a little further and finish the whole length. Who knows, perhaps he has done so by this time, being led by curiosity to learn what progress the science has made since the days of its founder, and has become a convert to phrenology. If he will read carefully Dr. M. Broussais' lectures, delivered in 1836 in the University of Paris, and published in the *Lancet* of that year,

he may like the work just as well as Dr. Gall's works, if not more. It is to be hoped that Dr. Mahendra Lal Sircar would take this suggestion in good spirit. And it should be mentioned at the same time that the intervention of phrenology, physiology of the brain, whose study has been so admirably traced by Drs. Gall and Spurzheim, is essentially necessary to put an end to the speculations of the psychologists.

AN ACCOUNT OF GALL'S PHRENOLOGICAL THEORIES.

XXII.—Organ of Loftiness.

This organ lies immediately behind the crown of the head, between the two organs of Vanity or Vain Glory before enumerated; on the skull, therefore, it occupies the centre of the *sutura sagittalis*, and the adjoining part of the *parietalia*. It appears simple upon the skull, since it lies on the centre, where it forms a kind of swelling.

The English term loftiness has been chosen as expressing in part the double function which this organ seems to fulfil; though those functions have at most only a kind of figurative resemblance. Gall first called it the organ of Haughtiness, and then adopted that of "Sense of Height," on account of a secondary quality he supposes he has detected in the subjects on whom this organ is found; that is, he has found this organ to be peculiarly developed in those animals which are fond of high places; in eagles and other birds which seek eminences.

In men, this organ seems rather to denote the tendency to haughtiness, though it is probable that both these sensations may in fact be connected. One of the most striking coincidences of the supposed organ with the character, Gall found in a beggar, in whom he remarked it in a very great degree. On inquiry concerning the history of this man, he was informed that this man was a beggar through pride; this feeling had taken possession of his mind so powerfully as to produce a conduct that fell little short of madness. When young he refused to learn any trade, because he thought work degrading to him; and when sunk to the wretched state of a common beggar, he could not avoid occasionally manifesting the strong tendency of his mind, often ridiculously.

In mad-houses Gall has met with frequent conformations of the reality of this organ. He has remarked its prevalence on those who in their insanity deemed themselves kings and queens; he has observed it in children, accompanied by the

disposition to play the king and the general, and take the lead over their play-fellows.

III.—We now proceed to the last class of organs, those which constitute the peculiar prerogatives and glory of the human race, and which more eminently raise him above the brute creation. But here the great argument in favour of Dr. Gall's theory, derived from analogy and comparative anatomy altogether fails. When we consider, besides, that the organs still remaining are crowded into a narrow compass, comprising only that portion of brain on the crown of the head, which the inferior animals have not, and that therefore the difficulty of ascertaining the seat of the organs is here greatly increased. Considering further, that the powers and dispositions of mind here distinguished, are not only the most important, but also the most recondite, concerning the identity or diversity of which metaphysicians and psychologists are in great doubt. The reporter of Gall's doctrine cannot help expressing his regret here that he should be able to find so little argument and evidence in support of the fanciful suggestions of his author. But the subsequent organs may therefore be dismissed with greater brevity.

These organs all lie on the crown of the head, or on the forehead, that august feature which the poet considers as the glorious characteristic of humanity.

Pronaque cum spectent animalia cætera terram ;
Os homini sublime dedit ; cælumque terri
Jussit, et erectos ad sidera tollere vultus.*

The forehead rises in animals as they are advanced in the scale of intellect, but it is in man alone that the front assumes that graceful swell which is no less beautiful to the eye of taste than significant to the physiognomist.

XXIII.—*The Organ of Rhetorical Acuteness.*

This organ lies on the middle of the forehead, above the organ of Things, or of Education, and beneath that of Good Nature. These three organs follow, therefore, in a straight line drawn from the *glabella* to the sagittal suture. It appears, therefore, simple on the forehead.

The function or talent which Gall supposes to be connected with this organ, which Gall himself terms the organ of comparing acuteness, is principally that of popular speakers. Gall has found this organ, generally, in priests famous for their pulpit eloquence, and in men gifted with the talent of

* Ovid *Metamorph.* l. i., v. 84.

quickly combining their ideas, and of supporting them by illustrations, allusions, parables, similies, &c. ; in short the talent of ready recollection and lively combination.

XXIV.—*The Organ of Metaphysical Subtlety.*

This organ lies on each side of that of Rhetorical Acuteness; it appears therefore double, and when strongly marked with the last organ, forms a prominent round swelling. It is to be observed on the forehead of Socrates, Kant, Moses Mendelssohn, and Fichte. The ancients, says Gall, had an obscure sentiment of the high qualities connected with this structure of the forehead. They always gave their Jupiter a front endowed with these attributes.

Under metaphysical subtlety Gall understands the power of abstract thinking, as opposed to desultory observation.

XXV.—*The Organ of Wit.*

This organ lies at each of the outward sides of the organ last mentioned, and when strongly developed, without the two other organs last enumerated, it forms two balls on each side of the forehead, by the *tubera frontalia* of the *os frontis*. But when all are found together they form one great prominence, and these considered as constituting one complex organ, Gall terms that of the spirit or power of induction, including the faculty of seizing and comparing all the various relations of things.

Gall began one of his lectures by saying: "What wit is I do not know;" a confession that might have been well extended to the other talents which he has thus partially united, while he yet considers them as distinct. It should be observed, that it is this part of the forehead, the beautiful swelling of which is considered as so significant of intellect, which Gall observes to be often marked in children, and to retreat in advancing years; hence he formerly termed it the organ of Observation.

XXVI.—*Organ of Theosophy.*

This organ lies behind the organ of Good Nature, in the centre of the uppermost part of the *os frontis*. The forehead rises in the middle, and forms (when this organ is strongly developed) a kind of ridge which is frequently left bald.

Gall was in early life, made attentive to the great proportion of bald-headed persons whom he found at their devotional exercises before the altar, and at the same time he observed

that structure of the crown of the head which has just been noticed. He afterwards made this remark on priests in general, particularly monks, and those who took the tonsure from inclination. He opened Lavater, and found that most of his pious characters were strikingly marked by this peculiarity. He recollected the national character and physiognomy of the Egyptians. He found that painters, who may well be disposed to be often, perhaps generally, led unconsciously by obscure feelings in their creation of original forms, had commonly chosen the same figure for the portraits of their saints and martyrs. The head of Jesus is generally of this cast. This vague sentiment became afterwards conviction, from a minute and long-continued examination of characters which were familiar to him.

With this organ, which respects the noblest and sublimest sentiment that man can conceive, and when in happy coincidence with other excellent tendencies of the human frame, produces the highest human excellence, Gall closes his specification of individual discoveries with the acknowledgement that this specification has not the merit of being systematic. He offers it merely as a temporary and provisional statement (*sous condition*), subject to all the additions, modifications, and corrections, which every science of observation peculiarly needs.

CHAPTER VIII.

MISCELLANEOUS AND CONCLUDING OBSERVATIONS.

Gall, in the course of his lectures, frequently referred to a variety of observations, which he professed to have made on certain involuntary motions made by persons under the influence of a strong feeling; or as he would say, occasioned by the peculiar activity of a particular organ, by which he thinks the locality of those organs receives a strong confirmation. The topic under which he brings these observations he calls *mimickry*. The editor feels himself not authorised to pass it over in total silence, at the same time that he is unwilling to dwell upon the subject.

Gall's general notion is this: when the organs being excited are put in a state of activity, a physical sensation is excited in us, of which, indeed, we are not conscious, but which directs and determines the motions of our body. Hence Gall explains many common appearances, which every one has observed, though till now no one ever dreamt

of pressing them into the service of a psychological or physiological theory.

A man cannot recollect the name of a person or thing; what does he do in his distress? He rubs his forehead backwards and forwards, either over the eyes, or higher on the forehead, just where the appropriate organs lie.

In like manner a man frequently covers his forehead with the palm of his hands, while busied in contemplation or study.

Proud men raise themselves frequently on their toes; they hold their heads backwards, that the organ of loftiness may itself become more elevated.

A sense of danger, the necessity of circumspection, leads all animals (man not excepted) to stretch their necks forwards, horizontally, presenting the broad extent of that organ as it were in the front.

The timid man scratches his head on the organ of Courage behind his ear, as if he tried to stimulate his feeble organ to activity.

Devotion raises the forehead gently; an instinct has always led mankind to associate pious sentiments with height. The heaven of all religions is above.

These are the few particulars which the editor was less repugnant to quote.

Physiognomy, which seems to be so closely allied to Dr. Gall's own doctrine, does not, however, meet with a favourable treatment from him. There may be, he says, a relation between the structure of the brain and that of the countenance, but the connection between these is not immediate, nor can it be scientifically ascertained. The physiologist may suspect, but he cannot prove it. Lavater would have been more fortunate in his guesses, had he possessed anatomical skill, and proceeded in any way according to scientific rules; but he was a mere sentimental idler. He never made above two judicious general observations. *Physiognomy*, which pretends to explain the qualities of the mind from the native features, is not possible; but *pathognomy*, which professes to recognize only the accidental features which have been formed by the influence of the brain upon the countenance is very possible, and receives a strong confirmation from the doctrine of organs. The mimicry last mentioned is a branch of this pathognomy.

The observations which naturalists have made concerning national countenances have been fruitful in the science of physiognomy, but not as to the structure of the skull. No general results could be drawn without a previous collection, not of a few only, but of a very large number of skulls, from

the juxtaposition of which some general result might follow. It is also necessary that we should make further and more precise remarks concerning the character of nations, before this branch of physiology can be successfully cultivated.

There is a concluding remark which may indispose those towards Gall's theory, who cannot hinder the intrusion of moral feeling into the field of natural observation. This doctrine repels the notion of the perfectibility of man, by which I mean his indefinite improveability: for the bounds seem to be fixed in his physical organization. The eternal peace is precluded by the innate irascible disposition. The prevalence of all the bad passions in man cannot be impeded, while the physical tendencies in man remain the same.

Happily, however, this objection is but apparent: not any of the generous wishes or fond hopes of amiable minds are opposed to the doctrines of the philosopher of nature; they are all above and beside them. He who is lead to indulge in beautiful and sublime speculations concerning the grand economy of nature and providence, by the evidence of moral fitness which he finds within him, or the natural and historic testimony with which he is acquainted from without, will not be oppressed either by the imperfections or fixed organization of the physical world, as burthening the intellectual and moral universe. He will perceive that it is not absurd to suppose a corresponding change in both. Man may be bound for the present to certain organic limitations and restrictions of his faculties, which can never be infinite in any state of melioration. With his moral and intellectual nature, his organic nature may also be improved. Why should it not?

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER XIX.

BREAD OR GREEN SPECTACLES?

With the dawn of the second day came fresh anxieties. Fifine awoke with a splitting headache, as well as a burning thirst, which was only partially quenched by placing a small earthenware bowl outside the window away from the street to catch the rain; the morning, to make the outlook worse, being dull and wet. This was a point which had not presented itself to her mind before; but it now appeared likely that the lack of water might drive her forth, even if her faithful canine servitor should prove equal to the task of circum-

venting the shrewd Zerafine, and committing a rape upon her larder every time his mistress's reached the famine point. Then, if she were to be driven forth, whither should she go? Should she boldly face the difficulty, throw herself upon the protection of her adoptive parents, and challenge her husband to molest her? This course suggested itself to her mind as the simplest and most feasible. But then there was the question of how much influence he had obtained over the simple-minded Professor and his wife. She knew too well how wily he was; she knew, moreover, that she had not, out of sheer modesty and womanly reserve, told them all the depth and depravity of her husband's wicked designs towards her.

We know how far from the fact were these suppositions; but we must remember that Fifine had no means of knowing that she was on the wrong tack. We must, therefore, not be surprised if she decided to take the less courageous course; which was, moreover, more in accordance with the nature of woman, which we have Herbert Spencer's authority for saying, seeks safety in secrecy and hiding rather than in trusting to her strength. Then, if forced to capitulate by hunger or thirst, there was still the swift-flowing river, whose ruthless arms were as Endymion's to those of her husband. To that embrace nothing should force her to return!

Fifine sat with her thoughts far into the morning undisturbed. Now and again she went to the window, and looked down into the wet streets, where the people were passing to and fro on business or pleasure, just as if no human soul was in extremity. She vaguely hoped she might see the human form she detested more than any creature living or imagined going along the street, away from the house, when she might have stolen downstairs, and discovered herself to her parents; but she looked in vain.

Presently, the arrival of Beauty proved a diversion, although one not unminged with anxiety; for Fifine felt sure that sooner or later, however cunning he might be, his daily resort would be discovered. Notwithstanding her fears, however, she was glad to see the faithful animal. Strange satire on human nature, that the fair Undine should prefer the society of this dumb four-legged brute, with nothing to recommend him but his willing and unselfish devotion, to that of the two-legged fluting one, with his manifold gifts; but so it was.

"Thou art a good, faithful Beauty," said Fifine, caressing him, "and shalt have some of Zerafine's sausage, although it is all there is left between me and starvation. And with the words, she gave him a good cantle of what was left. When he had swallowed it, for he did not make two mouthfuls of it, she sent him downstairs, bidding him, as usual, be careful not to be seen.

When he had gone, his mistress determined to make a thorough exploration of her two rooms to see what they contained. We have already mentioned the chief contents of the inner room—the sofa, the table, and the three chairs. She now ventured to explore a closet or wardrobe, which being in the corner farthest from the window, she had not previously noticed. The only thing it contained of any

use to Fifine, was an old moth-eaten rug—which had once been lined with fur, but was now only lined with sparse hairs—and the remnant of an eider-down quilt. Fifine brought them out to the light, and cleared them of as much of their accumulated dust as she could; but when she thought of using them as night wrappings she shuddered, remembering that they might have covered the old woman said to have been murdered in the garret, or her husband, who was reputed to have murdered her.

She now proceeded to the other room. Here there was another old chair or two, a table less robust than the one in the inner room, an equally dilapidated sofa, and the old bedstead before mentioned, with a few bits of rags on it. A rack in one corner by the stove held a few dishes, mostly cracked and discoloured; in the other there was a kind of three-cornered cupboard, which it took Fifine some trouble to open. It was made of solid oak, and in it what was her surprise to find, besides some odds and ends of crockery, cutlery, etc., several bits of wax candle, at the sight of which Undine clapped her hands for joy, remembering how dismal the night had been without a single ray to cheer up the dark room. But no sooner was her joy born than it was strangled, for of what use were candles without the wherewithal to procure a light? Oh, if she could but find a few matches!

Pursuing her Robinson Crusoe examination of the desert island of the garret, Fifine discovered several other articles, that were curious, and might have been useful under different circumstances, but which were not at present calculated to add to the young lady's comfort or well-being, and which she would willingly have exchanged for a couple of lucifers, of which, however, there was no trace.

Fifine had about given up the search with a desponding heart and a feeling that she must reconcile herself to that aboriginal condition of darkness that reigned before the invention of dips; but remembering an old saw of her nurse's, "When you have looked everywhere thoroughly, look again," she decided to make another minute examination of the two rooms. As luck would have it, this time her search was successful; for, in an earthenware jar, on a shelf by the stove in the small room, into which she had looked before, and seeing two dirty old pipe bowls, and some dried-up tobacco, had restored to its place untouched, she found, on careful re-examination, a box containing six or seven matches. A large "Oh!" escaped her lips, and with mingled feelings of wonder and gratitude, she gazed upon her find, and in her heart attributed the small store of matches to a watchful, beneficent Providence, that can care for a forlorn woman as well as for a sparrow.

One only fear now troubled her, whether they would strike—a source of endless anxiety until night.

This search, and the various little bye-occupations to which it had led, took up the time till evening, by which time she had become so hungry that she was obliged to have resort to her provision-safe, namely, the three-cornered cupboard. But sausage without bread did

not go down well, even with the sauce of a good appetite. As she nibbled her wurst, she stood at the little gable window overlooking the Langen-strasse with its shops and the Domplatz with its stalls. Neither the vegetables displayed for sale on the latter, nor the fish, looked very tempting; but how the sight of the fruit did make her mouth water! And then the display of bread in Sussmilch's window! What would she not give for one of his nice rolls!

Just then Beauty gave his signal at the door, and Fifine ran to open it for him—the quicker, because his scratching at that opportune moment suggested a happy thought. “Beauty,” she said, speaking to him as to a Christian, and taking hold of his left paw, “do you think you could go to Sussmilch's, and fetch me a roll?” Beauty licked his chops, as much as to say he could. She lifted him up to the window, and showed him the shop and Sussmilch standing at his door waiting for custom. “Now, do you think you can go to him, and take this groschen, and ask him for a roll?”

Beauty licked his mistress's hand in sign of acquiescence, and, when put down, jumped about to show his readiness to be off. Fifine, however, waited a little while before sending him forth on his new adventure, so as to give him the advantage of a little more obscurity. In half an hour it was dusk, and Fifine, placing the coin in his mouth, and again telling him what to do, and bidding him be careful how he went, opened the door, and sent him forth, like a new Jason in search of a new golden fleece, or like a new dove from a new ark. Noah and his family could not have watched the outgoing of their messenger bird with more anxiety than Undine looked for her four-footed Hermes. It had become too dark, however, for her to see from her high watch-tower down into the street, and so she must needs curb her impatience and await the issue of her canine bread-getter's new adventure. Twice Fifine thought she heard his patter on the stairs, and stealthily opened the door to listen; but on each occasion it was a false alarm. So much depended upon Beauty's success, that she seemed to have waited full half-an-hour, when barely five minutes had elapsed. Again she had gone, from vainly listening at the door, to peer as vainly from her window into the darkness, when Beauty's well-known scrabbling came at the door. She opened it with trepidation; for ever since he went on his errand, Goldsmith's Moses had been running in her mind, and she could not help putting the query to herself, as she opened the door: “Bread, or green spectacles?” Eureka! Beauty was a better marketer than Moses, for he brought bread.

Many a turfite has hugged and kissed his horse when it has succeeded in winning for him a big race, and a big stake with it; in like manner, Fifine hugged and kissed her four-footed racer for winning what was to her of more value at present than a large stake—a small loaf. Many an animal with two legs would have fetched and carried a life-time for the same reward and thought himself a happy dog too!

With Beauty as her caterer, and the candle-ends as dispersers of

night terrors, Fifine felt that she could sustain a week's siege in her watch-tower. Some wood she had found would give her fire if the weather became chill ; while the old moth-eaten rug, and the patched eider-down quilt, would provide her with bed-coverings for the night. Then, for whiling away of the time, there was Annette's musty worm-eaten English book, picked up in a second-hand store, to help her in her studies, and produced for Fifine's admiration when she went down the night of her flight. But what a companion for a young lady in her lonely Patmos and Juan Fernandez of a garret ! Surely Circumstance does occasionally Aristophanise. How much more appropriate had it been Young's "Night Thoughts," or Zimmermann "On Solitude," or Tupper—or, in short, a thousand other books ; but, ye lovers of the congruous, it was "Toxophilus"—nothing else !

Prone on the sofa, with her ancient volume before her, and her first morsel of candle on a chair by her side ; so did the Undine spend her first lighted night, until sleep closed her eyelids ; for her fears of the matches proved vain. The first, it is true, missed fire, and almost sent her heart into her mouth ; but the second fortunately proved that it had lost none of its latent force by being long laid away, and, like the mummy corn, showed its potency when confronted with proper conditions.

And so extended, and poring over the discoloured pages of old Ascham, weariness presently overcame the fair recluse, and with her soft cheek pillowed on the open book, she passed over a sound bridge of sleep into the third day of her Hajira.

CHAPTER XX.

A QUESTION OF MORALS.

Fifine's third day in her voluntary prison presents little that is noteworthy. She rose in the morning, refreshed by her sleep. It was broad daylight, and a bar of sunlight fell through her uncurtained window upon the floor. Her toilet did not take long to perform, she having neither comb, nor brush, nor powder, nor mirror, nor anything—not even water, for the little she had been able to collect in her earthenware rain-tub during the rain of the previous day, was precious, as the only means she had of quenching her thirst. All she could do, therefore, was to give herself a general shake-down, and smooth her hair with her hands. This having been done, her next thought was breakfast, her physical well-being being proved by a very substantial appetite. There was half of the roll, and a small residue of the Guderger wurst Beauty's sagacity had provided, and, for drink, about a cupful of the rain-water afore-mentioned. Like those who have the least, however, Fifine was duly thankful, and having eaten to satisfaction, had not only no care for the morrow, but hardly any for the afternoon. It is only given to those who have nothing, and live, like the ravens and the sparrows, on the day's bounty, to be able to fully carry out the Scriptural injunction in regard to taking no thought for the morrow.

With one small piece of sausage, no longer than her own small thumb, between herself and a bare cupboard, she calmly faced the future as regarded her bodily wants. She was troubled about her adoptive parents, however, wondering how they would support her loss, what they would think of her; if the flautist was still with them, and how he came to be there. Fifine deceived herself in one thing; and perhaps there was little wonder that she should. She thought, on the whole, that Claus and Bear would take her loss lightly; though warm-hearted and good-natured to a degree, both the Professor and his wife had appeared to her a couple of cheerful, light-hearted people, who took life easily, and would not allow any care to trouble them long; like children, in their simple, innocent natures, they would, like children, be as impervious to deep grief. Such was Fifine's way of reasoning; and it lightened her trouble to think that they would regard her loss so lightly. Strangely enough, she gave Zerafine credit for more profound feeling, despite her brusque ways and ironic tongue, and thought she would miss her most.

But she had not much time to devote to thinking about these things; for presently Beauty was at the door. He ran in with a cheery wag of his tail, and an inward curving of his body, that said as plainly as gesture-language could: "Here I am, come to serve you again; I've outwitted them all; and glad I am to see you."

Fifine patted his head, and stroked his rough hair, as a reward for his devotion, but gently reproached him for having come empty-handed—or, to speak more correctly, empty-mouthed.

"Could you not," she asked, "find a bit of sausage, or a morsel of cheese, even if it were only Swiss, or a roll, or anything to bring? If it had been only a chicken bone, it would have been better than nothing."

Beauty looked down dejectedly, but whether from a feeling that he might have done better, or from the thought that, whatever he might do when following his own brute promptings, he did not expect such teaching from his beloved mistress, it were hard to say. However, the question did not trouble him long; he probably thought, in his narrow canine way, that the moral law may reasonably be read differently from an empty and a full stomach. But the point is a recondite one, both for dogs and men, and we will not interrupt the course of our story to consider it.

Fifine led the way to the cupboard, with a "Never mind, Beauty, you shall have half of what is left!" And so he had, leaving half a thumb length of sausage for the remainder of the day, unless he could again replenish the larder from the baker's.

"You will have to try," said his mistress, looking for a groschen in her purse, and if you don't succeed, there will be neither bone nor anything else in Mother Hubbard's cupboard!"

Again the intelligent brute took the coin between his teeth, and after listening at the top of the stairs to be sure the coast was clear, stole down and across the street to the door of the worthy Sussmilch. Fifine saw him enter, and presently come out again with something

in his mouth. Sussmilch and his wife came to the door, and watched him, and the dog, knowing creature that he was, ran off down Prediger-strasse, as if going home was the last notion in his head. Fifine thought surely he had failed her this time; but in less than three minutes he was at the door.

"Oh," exclaimed Undine, when she had taken the roll from him, "if my husband had only been half as good to me as you are, we should have done bravely!"

The remainder of the day passed without any incident of special note until towards eleven o'clock at night, when Fifine was about to compose herself to sleep. All the afternoon she had taken her station at the gable window, and had watched the street, to see if she could descry aught of her husband, or rather of his back; for she was interested not so much in his coming as in his going. But she saw neither the obverse nor the reverse of that counterfeit presentment of a man.

She once caught a glimpse of the Professor; she could not, however, at her height from the street, see the marks of sorrow on his face, else it might have brought this story to an earlier close. How willingly she would have run down, and thrown her arms about his neck; but it would not do; the risk was too great. Not even for a father would she chance the meeting with a husband.

When she could no longer see the people in the streets, Fifine lighted a candle, and took to her book, and so passed the evening until it was time to think of sleep. Just then, by the usual sign, she was made aware that Beauty was at the door. As soon as the door was open, he rushed past her and into the little room, where Fifine found him standing near the sofa, with a small knuckle of pork in his mouth. He looked so comical, wagging his tail, with the meat hanging from his chops, that Undine could not help laughing, the first laugh she had indulged in since the apparition of her husband in Claus Bromm's presence. On examination, she found the pork had been boiled with sauerkraut, and knew from that sign that it was not from the Claus Bromm's larder, as both the Professor and Bear had a horror of that dish.

"So that is your reply to my reproach of this morning," said Fifine, when she had placed the provender in the cupboard. "Ah, Beauty, I shall have to teach you differently when our fortunes are improved. Then we will confess our sins and make what amends we can, won't we?"

Beauty wagged his tail; which may have meant: "Yes, dear mistress, that we will;" or it may have meant, simply: "We will see;" which, if a more dubious, was a wiser answer; for neither dogs nor men are able at will to unlearn in prosperity what they have learned in hardship and adversity—a truth vouched for by many an ancient adage.

But Fifine, good soul, was disturbed by no such nice considerations. When she bade her canine friend and protector "Good-night," and bolted the door after him, she was chiefly concerned about her

responsibility in regard to his peccadilloes. Like the best accepted feminine exemplars, she did not reason, did not even question, but tried to live out that unwritten law of conduct, which is somehow born into the blood and bone and being of the best type of womanhood. And alas! how often does it prove that such women are sacrificed by falling to the lot of some good-for-nothing simpleton, if not to that of an ingrained scoundrel, like our knight of the flute!

Oh, thrice unfortunate Undine! to think that it should have fallen to thy lot in the chance medley of marriage to become the better half of that less than half of a man! That he whom thou hadst promised to love and obey, and at whose feet thou hadst so confidently thrown thy young life, with all its promise, should, within the space of two short years, become the one who, in God's wide earth, thou shouldst most detest and abhor; and that the one who had promised to love thee as the most sacred and beloved object on earth, should prove able, in that short space, to regard thee as a mere chattel—a thing to use and abuse merely!

It is enough to make one ask the question, what this so-called love is? Why does it go out in one case like a sputtering candle, and in another burn with a pure and celestial flame? Is there love and love? And if so, what makes the difference? Is there the true metal and the spurious?—the true silver and the German imitation? And is it impossible to tell the one from the other except by actual wear? Does the real thing bear no hall-mark whereby it may be known for exactly what it is worth? Blessed would be the man who could enlighten us on this point.

Certainly no such enlightener had fallen in Fifine's way. She had not even enjoyed the advantage of the teachings of that reverend doctor in love and matrimony, St. Anthony Trollop; none of his estimable works on the right way of wooing and wedding having, as ill-luck would have it, fallen into her hands. Hence, probably, her misfortune.

Could we not, by the way, have a Trollop society, as we have Shakespeare, Browning, Carlyle, and Ruskin societies, in order that the beauties and truths of the great Anthony might be brought more fully to the knowledge of the world, especially to that of the unwedded world?

CHAPTER XXI.

OLD KNUTZ'S TOBACCO-JAR.

The fourth day passed similarly to the third. Fifine's toilet, or non-toilet, was the same. Her breakfast was nearly the same—roll and knuckle of pork, instead of roll and sausage, with two or three mouthfuls of rain-water. Beauty made his appearance as usual during the morning and was rewarded with a bone to pick. When he had made his meal, he expected to be sent on his usual errand to the baker's; he sat on his haunches, watching his mistress, and every time he caught her eyes, he gave a meaning, side-long glance towards the door. But Undine was depressed this morning, and anxious

and did not dare send him for her "daily bread," for fear his frequent visits should attract too much attention, and cause him to be watched; for she had no doubt whatever in her own mind that her legal lord and master was on the look out for her, and would leave no stone unturned to find her; and well she knew his cunning and perseverance in a bad cause. The same zeal spent in a good cause would have long ago established him in good social position.

She had taken her post at the window, as usual; but the outlook only depressed her the more. It was a cold, dull day, threatening rain, which fell later, and the people in the streets seemed to go about in a dull, listless fashion, as if the weather had taken the heart out of them. Of course it was only the state of her mind which made things appear in this light; but it was real, nevertheless, and so she had quitted the window, and thrown herself on the sofa with her book.

The fact is, our young Crusoe was beginning to feel the reaction after her three days of excitement, and needed a run to stir up her blood. But that, of course, was just what she could not get. Still, if she could do something, she thought, it would do her good, and perhaps keep off one of her nervous headaches. Suppose she should try and tidy the place up, and make it look as neat as possible. The idea was no sooner conceived than put in execution. She set to work first with an old brush—one found among the other rubbish of the place—and brushed up the two rooms; then, with a piece of old cloth dusted everything she could reach, including the doors, the window-sills, the stove, and the rickety old bedstead, that almost came to pieces at her touch.

When she had done this, Fifine began to arrange things; then, suddenly, the thought struck her that she would put the things in the places they might have occupied in the time of the old verger and his wife. But then arose a difficulty: should she arrange them in the way in which they had probably been arranged when the old couple were first married, and presumably happy, or when differences had arisen between them, and they were at daggers drawn?

"Poor old people!" thought Fifine; "to imagine them sitting here, alone, right away from the world, with no one to comfort them and smooth over their differences; may-be ceaselessly nagging at one another, or silently enduring each other, till it was impossible to endure longer. And yet at first, in the hey-day of their wedded life, with what anticipations of happiness they would rent and furnish these rooms—narrow, and very close to the roof, but comfortable and cosy, with warm hearts in them! Many and many were the happy lives that had been spent in attics as narrow and as high. It needed not broad staircases and lofty rooms, any more than broad acres and large incomes to make happiness; but only kindly hearts and honest purposes. Oh, how happy," thought poor Fifine, "could she have been in such an abode, with a true and devoted husband! Though hung as high almost as the Dom bells, their lives would have chimed together as harmoniously; and in their home so near

the sky, they would have lived a life as lofty as the stars!" Her heart swelled at the thought; her eyes gave evidence of the tide of feeling, and, as quaint old Quarles would have put it, she pickled her cheeks in her tears.

"Then," thought Fifine to herself, mentally re-arranging the rooms as in the old folks' honeymoon, "this bed would be in the small inner room, not in the large outer one. The large room would be the living room; the small one the sanctuary. The sofa would be in the living room, and on cold winter nights it would be drawn near the stove, and the wife would sit there, while the husband would have his arm-chair opposite, with his long pipe, and they would look at each other, and their looks would be as good as words. It was only after estrangement came that the sofa was taken into the inner room, and the bed brought out, and that two separate lodgings were established in one apartment."

Fifine imagined that the husband made the inner room his, because it was there she found the jar with the tobacco and the pipe-heads; and that he made his bed on the couch—perhaps covering himself with the very rug she was now using as a coverlet;—while the wife called the large room hers, and there nursed her regret and anger like twin babes that sucked her remorselessly dry.

"I wonder," mused Fifine, continuing her cogitations, "if life would have gone smoother with them if they had had children; something to take their thoughts away from themselves, would surely have been to their advantage; and so it brings one back to the old idea of trinity in unity supplying the only perfect bond of love and happiness."

Then she threw herself into the old man's large leathern arm-chair, and tried to conjure up his thoughts. "Supposing," she said, "the old woman was cross, and hard to please—shrewish, even—could you not have a little pity and forbearance? Your wife had much to call for both; for do they not say she was lame, and so rarely able to leave this garret, which thus became her universe? You, on the other hand, had the whole of Kaiserstadt, and some leagues beyond it, as your world, wherein you could disport yourself, refresh your energies, and come home re-invigorated to your chamber-ridden wife, who, meanwhile, had only been able to promenade her eyes over a few yards of street and some acres of sky;" and, she might have added, hold some conversation (not often very edifying) with the beasts in her private Platonic menagerie—that is, with her lower passions—for few persons would take the trouble of mounting five flights of stairs for the dubious pleasure of a confab with an elderly dame, reputed to be an untamed Katrina.

"But there," continued Fifine, "one knows so little! He may have had a world of pity and forbearance; and possibly it was best for them to be apart—he here and she there. But oh, the pity of it, that two beings who came together in love should live to find each other's company unbearable—till, indeed, as people say, one of them ended it all with a crime, if not a double one! Horrible!"

The thoughts inspired by the old leather-seated chair were not cheering, taken in association with her own experiences; and so Fifine quitted it, resolved, if possible, to find some more reassuring subject of thought. But she could not get away from the melancholy line of reflection the relics of the old household had suggested, do what she would, until, towards dusk, her faithful friend and protector, Beauty, came to her rescue. He entertained her till she thought it was sufficiently dark for him to venture to the baker's for her supper roll, for which she felt somewhat urgent cravings, not having bitten since morning. In sending him out this time for a roll, Undine took the precaution to tell him—hardly expecting, however, that he would carry out her injunction—not to go to Sussmilch's, but to Gerhardt's (which was in the other direction down Prediger-strasse). Although she could not watch him, she knew she could tell by the bread he brought whether it was from Sussmilch's or from Gerhardt's. It was not long before Beauty was back with his roll, and, to Fifine's surprise, it was a Gerhardt roll! Having been guerdoned with a *bonne bouche* of pork, he was presently dismissed.

The night was damp and chill, and for the first time since entering the garret, something uncanny seemed to pervade it. To make the place a little more cheerful, therefore, Fifine resolved to venture upon making a fire with some of the wood and fir-cones she had found. She first, however, took the precaution to pin a bit of dirty muslin before the window—a precaution, by the way, which she had not thought of the two previous nights when she had lighted her candle. When everything was ready for making the fire, she lacked a bit of paper to start it with; remembering, however, that she had seen a scrap in the tobacco-jar, she went there, and got it. On opening it out, she discovered it to be an "Extra Blatt" or "Feuilleton" sheet of the Kaiserstadt *Anzeiger*, and was igniting it at the candle when she perceived that there was some writing in pale ink along the upper margin. Extinguishing the flame, which had already caught the corner, with her hand, she spread the sheet out carefully, and tried to decipher the writing, which was in the most obscure German cursive hand. For some time she could not make much of it; but finding it was signed "Peter Knütz," she was stimulated to persevere, and was at length rewarded by making out the following: apparently the old man's "last words," as well as his will and testament—

"This is my last night here. I came home at eight o'clock and found that Kathe had hanged herself. I cut her down and laid her on her bed. Although we have lived unhappily together for many years—why I hardly know, except that we did not hit it—yet I cannot live without her. This morning she brushed my hat and coat, and handed them to me before I went out, and she looked at me, as I thought, sadly; so that when I had got half way down-stairs, I stopped to consider whether I should go back, and see if I could do anything for her. I wish I had. I am now going out, and if my courage holds, I shall never return. What bits of things are here, it is worth nobody's while either to give or to take.—PETER KNÜTZ."

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Undine wept over this strange document and forgot her meditated fire—forgot, indeed, half her own woe. After reading it several times, she folded it up, and put it between the leaves of her book, with the intention, when circumstances permitted, to produce it as a vindication of the old man's character, who had been unjustly suspected of murder, besides suicide.

"How strange," thought Fifine, as she lay down and pulled over her the old man's rug, "that it should fall to my lot to come and unravel all this mystery!—to me who, according to the date of the paper (December 15, 1850), was only about four years old when these events happened; and had consequently to grow up to girlhood, to pass years of unhappiness at school, to commit a rash marriage, and after a miserable wedded life, to come to hide from my husband here, before these poor, unhappy people's story could be properly known! But oh, how unutterably sad to think that no one cared sufficiently for them to make any examination of the place, or of their effects! 'Worth nobody's while either to give or to take,' truly; not even to look over, apparently. And so, because there were marks of violence on the wife, they concluded that the husband had murdered her before he committed self-destruction, although, by lifting the lid of the old verger's tobacco jar—which, in lieu of desk, *escritoire*, or *ecrin*, was made the general receptacle for valuables—they might have been brought face to face with what he intended should be found, and explain everything."

With thoughts like these running through her mind, and with the feeling that, sad as her lot had been, and dark as it still looked, there were other destinies sadder than hers. Fifine fell asleep, and so dropped unconsciously from one day into another, as unconsciously we drop from one completed life into another.

CHAPTER XXII.

CLAUS'S REASON SHAKEN.

The fifth day of our Hajira was noteworthy in many respects. In the first place it was Sunday. Fifine was made aware of this fact in two ways. After having breakfasted on what little she had left, she became possessed of an uneasy feeling, as though she had forgotten something, or had left something undone. She could not make out what it was, though she racked her brain to imagine. Was something going to happen, she wondered and this was a premonition of it? She tried to read, but could not; endeavoured to dissipate her thoughts by examining again the relics of the Knütz's with equal non-success; then she walked about the room uneasily, and tried in vain to diagnose her disquiet. Finally, she approached the window, and at once understood her complaint—that is, she saw from the number of shops closed that it was the seventh day of the Christian week and the fifth of her ascent into the garret.

Psychologists attribute the recurrent animal instinct of birds of

passage for migration to an agitation in their blood, caused by the frequent repetition of the migratory act in their ancestors; which act naturally occasioned a quicker circulation of the blood, and a more rapid action of all the vital organs. So, in other departments of life, oft-repeated acts have a tendency to become instinctive. The old man continues to have the promptings to work, after he has retired from active business, and it not unfrequently shortens his days not to be able to obey them. I have heard a man, when he was old and rich, and therefore in a position to go to the theatre or other place of amusement any time he liked, say that he never could feel comfortable to stay at home on Saturday nights, that being the time when in his apprenticeship and journeyman days he was accustomed to treat himself to those recreations. Fifine's uneasiness was attributable to a similar cause; it was the recurrent symptom of Sunday; the instinct of extra toilet and preparation. The instinct manifests itself in different ways. In the breasts of a certain class of British Philistines it prompts to the putting on of a clean shirt, to the inducing the hair with some drachms of oil, to the lifting down of the family Bible, and to the eating of an extra quantity of beef and pudding—without which the human animal feels that its Sabbath-day has been ill-spent. To others, but a little removed in caste from the latter, it manifests itself in the putting on of a sad countenance with a sombre coat, and in the carrying of a sheaf of gilt-edged and gilt-clasped books to a place of worship, instead of going to another place of worship where the books handled have the gilt (or guilt) all in the inside.

This, however, is all parenthetical to, and as it were explanatory of, Fifine's Sabbatarian instinct. But in her case it was, perhaps, as much a flapping of the wings against the bars or walls of her cage, and a "want," like that of Yorick's starling, "to get out," as a desire for extra plumage, or for extra pluming of the same; for her school-day Sundays were more marked by an unvarying attendance at church—no matter what the weather—than by an extra attention to dress, although that matter was not forgotten.

When she saw the people in holiday attire, and the streets and the Dom-platz with a gleam of mellow autumn sunshine upon them, she felt what one always perhaps feels when the sun lifts up the clouds and extends the view—a desire for enlargement. But there she was in her cage, or ark, with as little chance of getting out as Sterne's classic bird, or as any of the unwinged creatures out of Noah's bark. She turned away from the outer world with a sigh, sank down on the sofa with a dejected air, and tried to read the horoscope of her future in the boarded floor, just as any Cinderella or Marianne of the Moated Grange might have done, and with the like success.

In order to shake off her fit of depression, Fifine presently resolved to make her toilet, and accordingly loosened the band of her hair, and sent it flowing about her neck and shoulders like a stream of gold. She combed it out carefully (with her fingers), and again tied it up neatly; then she turned the tuckers of her dress, so as to show

the whitest side out, and although there was nothing of the nature of a mirror in which she could see herself reflected, yet she felt better and as if she had paid a debt of duty to the day.

When this observance had been finished, the Dom bell began to ring, and it afforded our Cinderella some amusement for a time to see the people going to church. She saw the demure Annette tripping by the side of her mother, who hardly ever stirred out except to go across the square to the Dom. She watched them until they entered the church, and then a couple of tears rolled down her cheeks at the thought of the pain she must have caused Annette, as well as the others in the house.

When the people had done streaming to church, Fifine began to wish Beauty would make his appearance, as the garret felt duller than usual; but she looked for his coming in vain. Service began and ended without a sound occurring to interrupt her quiet.

Dinner-time came, and with it a mingled odour of toothsome dishes that whetted her appetite to a fineness of edge that would have delighted a *bon vivant* and marked a dominical day in the calendar of his eating year. But, with that fantastical waywardness which characterises so many of the ways of Providence, she—like the poor in general—was afflicted with a wealth that was a trouble and a burthen to her, and which, nevertheless, she was unable to barter for some of the surplus riches of others. "Oh," she might have exclaimed—slightly altering the quaint prayer of the author of "Good Thoughts in Bad Times"—if she had but thought of it, "Oh, that the Lord would make my appetite less, or my food more!" but then she did not.

The fact is, Fifine was too much occupied with an analysis of the sweet savours that arose from the baked and stewed offerings upon the altars of the household. She could easily discriminate and localize the various mingled odours. The colash and cabbage she opined belonged to the hotel-porter's household; and thought there might be with them substantial knödel, by way of ballast, as it is impossible for such people, of vigorous appetites and narrow means, to play at feeding and trifle with delicacies. The pork and beans, rich and unctuous, she could not be mistaken in attributing to the undertaker. Though reputed to be tolerably rich, he was not a nice eater; peasant-born, he continued his peasant tastes and instincts; hence the pig prevailed in his dietary and bile in his diathesis. Professionally, this habit had its advantages; it gave him a cadaverous countenance and a lugubrious air; indeed, he seemed like an attenuated spirit carrying about a dead body. A half-ghost is a good attendant upon the dead; Chiron must have been a kind of foster-brother of his.

The odour of venison and turkey, with several sub-savours, arose, undoubtedly, from the Gastwirth's *cuisine*. Nussbaum was a good liver, had a good cook, and never failed to feed the hungry when he sat down to dine. Fifine supposed, from the number of dishes, that the Wirth had company to dinner; nor was she mistaken.

Leitner was there. Annette's lover was in great form, and charmed the heart of the maiden's mother as well as her own. Frau Nussbaum—who was a walking diary of dinners and who ate them—recalled the fact that a week ago Fifine had dined with them; adding, as a pious commentary, "And to think that to-day we do not know whether she has got a dinner to eat, or is able to eat one!" Annette wiped away a furtive tear, while the Wirth replied—

"Poor wench! there was an unfortunate strain in her; and there's no knowing when such a thing may turn up, or what it may lead to!"

Leitner had his own thoughts on the subject, and only assented in a general way. Nussbaum, it should be remarked, had heard Bleichroder say that many ill traits were attributable to parentage and had adopted the theory.

There was one tone missing in this diatetic scale; at least, Fifine's olfactory organ, delicate as it was, could not detect it. "Could there," she asked herself, "be a Puritan Sunday feast on the Claus Bromm table, or, worse still, an Irish fast?" She had known such, and she knew how cheerfully the little household bore them. But how she wished she could descend, like a fairy in the night, pass unobserved into their dwelling, leave on the table the coins that were useless to her, and with them a blessing, and so depart. The thought had one happy effect: in sympathising with the Professor and his household in their supposed compulsory Ramadan, Undine forgot her own hunger.

But in the Claus Bromm dwelling matters were worse than she had imagined. The old man's pining and distraction had turned into a kind of hallucination, which boded ill for a speedy return to his normal state of mind. All day on Friday he had complained that some one had stolen his daughter, and he had gone to the chief office of the police and laid a charge to that effect against some person or persons unknown. During the past few days he had become sufficiently well known to the officials, who, seeing how deeply his grief had affected him, treated him with becoming consideration.

By Saturday, the hallucination had grown upon him, and early in the day, Bear had run over to the Doctor's to inform him of the new trouble and ask his advice.

"Keep him in on some pretext for a little while," said Bleichroder, "and I will presently drop in, as though by accident, and see how it goes with him."

But when Bear got back, she found that Claus had slipped out unobserved and was out of sight before Zerafine could get downstairs. The two women looked for him in the neighbouring streets, and then gave up the search, thinking it, on the whole, best not to create any noise, or let him see that he was watched.

When the Doctor called, he commended their discretion, but at the same time went quietly in search of his patient.

Poor Claus! Few would have suspected that he could have given way under the shock as he did. When he quitted the house, he

hurried down to the river, and so on to the fortifications. Any one watching him closely would have inferred that he was losing his reason. He walked about ceaselessly, aimlessly, now here, now there, but chiefly following the paths he knew Fifine preferred, lingering about the spots she loved best, especially by the quiet pond where the teals swam and fed. He talked to himself as though he had a companion by his side; then, discovering by the lack of an answer that he was alone, he would suddenly start, pass his hand over his forehead, and hurry away as though in pursuit of some one. His cheeks had become pale and sunken, his eyes bright and glassy; there was famine written in the one, frenzy in the other.

Bleichroder sought for Claus a long time in vain; but at length, after an hour's wandering, he discovered him near the teal-pond above mentioned. Although greatly surprised, but more pained, at the change which had taken place in him in two days, he hid his feelings, and taking his friend by the arm, dropped into conversation with him, as it were, in the most casual manner, and led him homewards.

On the way, he thought he saw, from the Professor's rambling talk, what was the source of his trouble. The old man harped on the supposition that some one had stolen Fifine; "and we know," he added, "for what purpose men would abduct a young woman."

"But we do not know, for certain, that she has been carried off," replied Bleichroder.

"What has become of her, then?" asked Claus, abruptly.

"She may have gone home to her parents," answered the Doctor, with a sudden inspiration.

"Ah!" exclaimed Claus, hopefully, then added, in a changed tone: "But why should she go without telling us?"

"That is of course a mystery; but if she has gone home, we shall learn all about her in a day or two; also if she is dead," said Bleichroder, cautiously; "because a young woman cannot pass out of existence without leaving some trace. It would be a satisfaction, any way," he continued, watching the effect of his words on his patient, "if she is dead, to know it. Better dead than in wicked hands!"

"Certainly," replied the Professor; then, after a pause, he added more excitedly: "I would rather a thousand times she were dead than with the wicked; for if dead, we should know she wouldn't need our care, and we might feel the presence of her spirit."

Thus talking, the Doctor presently brought the old man home, and handed him over to the care of Bear and Zerafine, who promised not to let him go out again. Bleichroder undertook to come in again towards night, and so left them.

About eight o'clock he came with a telegram, which he said he had just received from a friend in Cologne, with whom he had been in communication respecting Fifine's disappearance, to the effect that a young woman of the description given, had been seen to pass through Cologne, and that it was supposed she had gone on to Brussels.

This news had a decidedly good effect upon Claus, who read over the telegram again and again, and finally asked to be allowed to keep it.

On leaving the house, Bleichroder whispered Bear to encourage him all she could in the hope that the missing one would be found. "It is our only hope," he said. "I have perpetrated this pious fraud in the hope that something may happen to justify our fervent wishes."

On Sunday morning, Claus slept late, and rose apparently refreshed, and rather cheerful. At eleven o'clock Bleichroder called to see him, and determined to carry him off to his sister's to dinner.

"You need not trouble about him," he said to Bear; "I shall not allow him out of my sight, and I shall see that he gets a good dinner, and it will do him good to have a change of scene."

The doubt as to whether he would get a very sumptuous meal at home had partly suggested the idea. Knowing that Claus had done little teaching for a week, the Doctor had surmised that the larder could not be very full, and had given a hint to Bear on Saturday evening to the effect that she need not hesitate to draw upon him for funds while Claus was ill; but she had replied that she had enough for the present.

Bleichroder's only sister lived in a pleasant villa in one of the extra mural suburbs. The house was situated on the slope of a low elevation commanding a charming view not only of the town and the river, but likewise of the vineyards beyond, and of the woods and hills beyond them. Schönberg, as it was called, was delightfully reclusive, being surrounded by garden on all sides, and embowered in trees. The Schönberg household consisted of three persons, exclusive of domestics; namely, Frau Schwarzbach—the Doctor's sister—who was to him simply Julia; Herr Schwarzbach, a great porpoise-like man, whose little ferret-like eyes could only express sleepiness and good-nature; and Theodor Herzel, a young Viennese artist, who had recently taken up his residence at Kaiserstadt.

The latter was a stranger to Claus Bromm, and on this first day of their acquaintance did not altogether please him, in which perhaps there is not much to wonder at, for the old man was silent and distraught, and so did not encourage intimacy, while Herzel appeared shy and observant. However, there was an approach to a more cordial feeling after dinner, when, in consequence of Bleichroder having been suddenly called away, the artist offered to walk home with Claus Bromm. At the Devil's Bridge they met Leitner, who induced the Professor to accompany him on a short walk through Weinberg.

On his return to Schönberg, Herzel said he thought Claus was a charming old man, although decidedly *toqué* in regard to Fifine. The artist was not a man of ready sympathy, and although he had heard the story of Claus Bromm's adopted daughter, it had made no particular impression upon his mind. In fact, he was at an age when the spontaneous sympathies of youth have given way either to in-

difference, or to a philosophy that regards individuals less and man more. He had lived, within a month or two, a full revolution of Saturn, and was consequently as old as Adam when he first trod the Garden of Eden. He had worked hard, and had gained what many men regard as the great aim of life—namely, fame; but with that he was far from being satisfied. Indeed, he was in a sense like Alexander, who, having conquered one world, sighed for another to attempt; he felt that the acquisition of an art, however noble, and the culture that goes along with it, however broad, was not enough as an end in life; there was something more. We may liken him to a rower who, having reached a bend in the river, rests upon his oars, and examines the upward course—or, maybe, more aptly to a climber who, having reached a mountain peak, sees a higher and nobler beyond, and longs to scale that too. The world would have called him a dreamer, and perhaps the world would have been right. But then the best in life is somehow compact of that which dreams are made of.

(To be continued.)

Facts and Gossip.

Dr. ENSOR, district medical officer at Port Elizabeth, took an opportunity to weigh Carey's brain. "In the whole of his long experience, during which he has given special attention to such subjects, he never knew a brain at once so heavy and so bulky as Carey's." After the first weighing he sent for another pair of scales, which gave the same abnormal proportions. The average weight is fifty to fifty-one ounces; the murdered informer had sixty-one ounces; whilst the largest brain ever recorded was but seventy. Quantity of brain, even if healthful, is no longer necessarily regarded as proof of intellect. Still, the great majority of clever men have large heads. And it has never been thought by intelligent observers that Carey was a fool. All the evidence of his life, and his actions, good or bad, suggests a large share of intelligence, an excellent digestion, and a blank in the place of conscience.

Dr. Ensor would have added a fact to science if he had told us where the mass of Carey's brain lay: whether in the position allocated by phrenologists to the animal impulses, as we should expect, or elsewhere.

Sir Rawson Rawson read in the anthropological sub-section of the British Association the final report of a committee which was appointed for the purpose of collecting observations in the systematic examination of the height, weight, and other physical characters of the inhabitants of the British Isles. The following are the twelve points to which the committee mainly directed their attention:—Stature, weight, girth of chest, colour of eyes and hair (complexion), breathing capacities, strength of arm, sight, span of arms, size and shape of

head, length of lower limbs as shown by the difference between the sitting and standing positions, girth, length and breadth of other parts of the body. For the leading points of their inquiry they have had observations on about 53,000 persons of both sexes and all ages. The first observations discussed are those relating to the stature, weight, chest-girth, and strength of 8,585 adult males (ages from 23 to 50) of the population of the United Kingdom, arranged according to place of birth.

The general results of these observations are summarized as follows:—In height the Scotch stand first (68.61 inches), the Irish second (67.90 inches), the English third (67.36 inches), and the Welsh last (66.66 inches), the average of the whole being 67.66 inches. In weight the Scotch take the first place (165.3 lb.) the Welsh second (158.3 lb.), the English third (155 lb.), and the Irish the fourth (154.1 lb.), the average weight of the whole being 158.2 lb. Thus the Scotch are the tallest and the heaviest, the English take the third place in both tables, while the position of the Welsh and Irish is reversed.

One of the most interesting features of the report is a series of shaded maps, which present at once to the eye the relative distribution of the stature, weight, and complexion of the adult male population in the several counties of Great Britain, and in each province of Ireland. From these maps we find, in the first place, that the very tallest men (average stature 5 ft. 9½ in. and upwards), are found in the Scotch counties of Kirkcudbright, Ayr, and Wigton on the one side, and the three Lothians and Berwickshire on the other. The next stage in height, 69 in. to 69½ in. is found to prevail also in Scotch counties—Sutherland, Ross, and Cromarty, Skye, Perth, Stirling, Dumbarton, Fife, Kinross, and Clackmannan; to which, however, must be added the North and East Ridings of Yorkshire. All the other Scotch counties are embraced in the heights between 67½ in. and 69 in., only Shetland and the Western Hebrides coming so low as 67½ in. to 68 in. Northumberland and the Irish provinces of Connaught and Munster have for their average heights 68½ to 69 in. Ulster and Leinster have for their average 68 to 68½ in., in which category also are embraced the English counties of Cumberland, Westmoreland, Lincoln, and Norfolk. The average of 67½ in. to 68 in. is distributed over the English counties of Durham, Lancashire, Derby, Stafford, Suffolk, Essex, Kent, Berks, and Cornwall: 67 in. to 67½ in. is found in Nottingham, Leicester, Rutland, Northampton, Bedford, Warwick, Worcester, Flint, Denbigh, Sussex, Hants, Dorset, and Devon. The London average is given separately—66.92 in. In the West Riding, Chester, Carnarvon, Anglesey, Merioneth, Montgomery, Cardigan, Brecon, Radnor, Cambridge, Huntingdon, Bucks, and Oxford, the average is found to be 66½ in. to 67 in.; and the lowest average (66 in. to 66½ in.) belongs to Herts, Middlesex (ex-metropolitan), Surrey (ex-metropolitan), Shropshire, Hereford, Monmouth, Gloucester, Wilts, Somerset, Glamorgan, Carmarthen, and Pembroke.

The second map, on which the distribution of weight is marked,

shows that weight and height do not invariably go together. In respect of weight the Lothians and Argyllshire bear the palm, the average in these districts being from 175 lb. to 180 lb. South-west Scotland and Perthshire come in the second line, with an average of from 170 lb. to 175 lb., while the whole of Northern Scotland comes into the third rank, with weights from 165 lb. to 170 lb. The highest standard found in England is the fourth, from 160 lb. to 165 lb., in Northumberland, Central and East Yorkshire, Lincoln, Norfolk, and Suffolk, Cornwall, Stafford, and North Wales. The bulk of England all comes within Standard 6—150 lb. to 155 lb. London has for its standard weight 152.9 lb.

With regard to geographical distribution, it has been found that the inhabitants of the more elevated districts possess a greater stature than those of the alluvial plains, and the inhabitants of the northern and colder districts than those of the southern and warmer parts of the island; those of the north-eastern and drier regions are taller than those of the south-western and damper climates.

Dr. NICHOLS has just published a wonderful pennyworth in the shape of a vegetarian cookery book. It contains forty pages of reading matter, and six portraits of noted vegetarians.

PEKIN ways are peculiar. For instance, the Emperor's physician enjoys a princely salary, but this salary is only paid so long as the Emperor is in good health. The moment the Emperor falls sick the physician's salary stops. It is the business of the physician to keep his patient well, not ill, and on sound logical principles the physician's pay is regulated accordingly.

APROPOS of Sir Moses Montefiore, whose approaching entry on his hundredth year is a subject of such general congratulation, what is the best recipe for a very long life—supposing a man to consider it an object worth attaining? Milton laid stress on "the rule of not too much," which is no doubt an excellent one, but vague in its application. Fontenelle, whose life embraced almost exactly a century (11th of February, 1657, to 9th of January, 1757), was formally asked his opinion on this weighty question, and replied that he ascribed his length of days to two maxims he had laid down for himself and rigidly adhered to—the first, "everybody is right;" the second, "everything is possible." The late Cannon Beadon was less sententious, and would laughingly explain that he had reached a hundred simply by never wearing an overcoat. It was either he or another centenarian who said he had never eaten cold meat, but always hot, and thus saved his digestion from premature exhaustion owing to double work. It is related of Lord Mansfield that whenever a hale and hearty old man gave evidence before him, he would question the witness in a friendly way as to his habits, with the result that he found every one to be an early riser. The toppers are said to have been as numerous as the water-drinkers: which is probable enough, the latter being an extremely limited section of the English people in the eighteenth century.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the *MAGAZINE*.—ED. P. M.]

E. B. (Banbury).—This boy is a great observer ; he is very quick to see, and has an exceedingly good memory of all he does and sees done. He can make an excellent scholar, and might succeed as a mechanic, as a trader, or in a profession—that of the law, for instance. He will make a very shrewd, sharp man. He is capable of great application, is naturally kind and affectionate, and although he has some temper, it is not of the destructive kind. Is remarkably fond of animals, and will be just as attached to children. Would make a good teacher ; he would also be in his element as a farmer and stock-grower.

J. P. (Northampton).—It is very difficult for you to keep quiet, and if you have not plenty of work to do, you will be sure to get into mischief. You are fond of fun and mirth, and it is hard for you to be demure and sober. You have many gifts, and if you had had the chance of a good education, you would have excelled in some intellectual sphere. You have the ability to make a good speaker, and you could succeed as an actor and entertainer. You have some ability for writing, and might have made an excellent reporter. You have some of the qualities for a soldier, having courage, and a love of adventure. Are naturally affectionate and fond of the young and tender.

A. H. (Sunderland).—Your qualities are of a very mixed character. You are very loving, warm-hearted, fond, and domestic ; are willing to give much confidence, and yet are inclined to be suspicious and a little jealous ; are easy in conversation and capable of being very agreeable to those you like, but it is hard for you to be pleasant to those you do not like ; are very kind-hearted, youthful, and genial ; not very firm, hardly proud enough, and too willing to let others take the responsibilities ; very sensitive to praise and blame ; very cautious ; a little impatient ; fond of children and home, and capable of devoted love to a mate.

M. C. (Finsbury).—Shows a superior type of organization, with a rather masculine type of mind—masculine, that is, in respect to intellectual power and general grasp of mind. The lady should be noted for her strong common-sense, for her good judgment, for her memory, for her observation, for her order, and for her power to calculate and keep a good profit and loss account. She possesses uncommon insight into character and more than common sympathy with mankind ; not, perhaps, so devotional in a religious sense as benevolent and just, and yet characterized for not a little peculiarly intense spirituality. By no means a sceptic, and yet a close critic.

Conscientiousness is a very large organ, so also is Approbativeness, giving sense of character and desire to improve. Very domestic, and devoted to those who are in any way dependent upon her. Economical, cautious, discreet, persevering and ingenious in devising ways and means.

J. P.—O. S. Fowler has never been in England.

W. C. H.—Nature has done pretty well by you, and if you do as well for yourself you ought to be a little better and a little abler man than common. It is not easy to indicate all your various powers in a short sketch like this; but you have that kind of intellect that would excel in scholarship, in literature, in art, or in business. You also have so good a natural development of the moral and religious faculties that you might have succeeded in the pulpit. Your language is not so great as your knowledge, thought, and imagination, but you would be able to speak well from the fulness of these. Are naturally sociable, domestic, and affectionate, and capable of manifesting a very benevolent turn of mind.

E. W. J. (St. Leonards).—You have a very compact head, and considerable natural ability. What you want in order to make the best possible use of it is a little more "push." You have a good natural constitution, and are capable of doing good work, and it requires work to keep you in health and out of mischief. You can make a good teacher; have fairly good qualifications for business, either as a salesman or a buyer; or you could fill some position where taste, skill, sense of form and proportions, &c., are required. You have a fully developed moral brain; are kind, respectful, quite worshipful, and very keen in your sense of right and wrong. If you resolve to work hard, and do the best for yourself, you can succeed in any of the above spheres.

J. L. (Kensington).—Temper is the worst qualification, jealousy the next. There is also considerable self-will, and not a little sensitiveness, inclining to tenderness. The other prominent qualities are kindness, sympathy, honesty, cautiousness, circumspection, youthfulness, agreeableness, genial politeness, economy, order and common sense, with a good deal of general ingenuity and power of contrivance. A handy person, a good worker, quite energetic, and of strong affections.

F. W. H. (Sunderland).—The photograph indicates a lady of rather superior type. She is very high-toned, susceptible, refined, and capable of much culture. There is nothing low or vulgar about her. Will be very devoted in her affections, extremely fond of children and home—loving almost to a fault. She is very entertaining in company, youthful in her disposition, rather hopeful and happy, and of quite a spiritual turn of mind. She is not robust, however, and though some of her family have lived to be quite old, and may do so herself, yet she will be subject to ups and downs in health. There is much originality about her, and with an education would exhibit some uncommon intellectual gifts in the direction of music, art, and scholarship.

THE
Phrenological Magazine.

DECEMBER, 1883.

MARTIN LUTHER.



At a time when everybody is hearing or reading about the great Reformer, and when every illustrated magazine and periodical contains his portrait, we cannot do better than give our readers our opinion of Luther as deduced from his own organization. We may easily see how differently he is regarded by different sects by



reading the organs of their opinions : how in the eyes of one he is a saint, almost a demi-god ; how in the other he is a demon. Both these views of him cannot be right. A man cannot be a vehicle of all the virtues, and at the same time of all the vices. He may be compounded of both virtues and

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vices, or of great qualities and small ones, as is very often the case. Or he may be a compound of immense powers, great passions, overpowering impulses, that can only be kept within due limits by constant guard and struggle. The most powerful men, those who have most impressed their wills upon the world, are generally men of this type. They must be greatly active, and if their powers are not employed in some worthy channel they are likely enough to be engaged in mischief.

The portraits of Martin Luther are very varied, but they all agree in giving him a remarkable organisation. In the first place, they show him to have had a powerful constitution. He was a large man, possessed of great vigour of organisation and much physical strength. There was nothing puny, sickly, melancholy, or dyspeptic about him; hence he was a man capable of enjoying physical life. His mind partook of this healthy character; there was nothing ascetic about him, consequently he was able to judge as one of the people, and not as a monk whose views had been warped.

His phrenology indicates peculiarities not often met with. He had a large base of the brain. That follows as a natural result, from his physical organisation; for the one and the other go together. He had all the passions and propensities of human beings largely developed, and he must have had to use all the higher and nobler qualities of mind to keep them in due check and subordination. Then he had immense propelling powers. He must be busy. If he were not engaged in a good cause the devil would be at his elbow suggesting evil ones, for the devil is man's lower nature struggling to get loose whenever the guardian faculties are asleep.

Destructiveness and Combaticiveness were both predominant faculties, fitting him for struggle, for fight, and for victory. They also were the main elements in his immense working power. Then Firmness and Self-esteem were powerful and influential faculties, enabling him, when he had thought out a course, to decide upon carrying it out, and giving him the courage of his opinions.

He was not a man much influenced by love of approbation, although he was not indifferent to the good opinion of others. Still, few were better able to champion an unpopular cause.

All the moral and religious faculties appear to have been large; although, perhaps, Veneration was a little subordinate in size to Conscientiousness, Benevolence, Hope, and Spirituality. His intellect was that of a giant. The perceptive faculties were unusually large, giving him clear vision

of all coming within his ken ; while his large Comparison and Causality gave him great critical acumen and a broad and comprehensive grasp. His Language was immense, so that he had an unlimited command of words. His Order was such that it enabled him to go about his work very methodically, and to waste no time.

One of the smallest organs in his head appears to have been Acquisitiveness (although some of his portraits show it larger than in others). Probably Secretiveness also was inferior in development, giving him great frankness and openness of character. Still, his will and self-esteem were such that he could manifest great restraint when necessary.

His powers were such that into whatever sphere his lot might have been cast, Martin Luther would have come out a marked man.

ON THE CORRESPONDENCE AND RELATION OF THE ORGANS OF THE BODY WITH THOSE OF THE BRAIN.

SECOND ARTICLE.

We have now briefly described the organs which have to do with material objects and their relations one to another, all of which are derived from the senses of sight, smell, taste, hearing, and feeling, for these are the avenues by which alone knowledge can come to us ; it is only by them that the whole system of external nature is presented to our minds ; without them nature would indeed exist, but could have no relation to ourselves ; it would be as if we were blind, deaf, and without touch, taste, or smell, and consequently without any means of communication with the outer world.

We have also already alluded to the connection which exists between the internal organs of the body and the cranial development in the coronal region of the skull, and by which we believe the sentiments are evolved in the same manner as the perceptive and intellectual are, through the senses in the front lobe, by which we become cognizant of all outward things, and their relations one to another.

It will be readily seen, however, that the sentiments which receive their impressions from within must be of a different nature from the percepts which derive them from without : the facts which our senses perceive are no longer looked upon as mere facts, but they enter into our very nature, and occasion a commotion in the body, sometimes of so powerful a kind as to cause illness, or even death itself : either sudden

joy or sudden grief have not unfrequently been known to produce death. In like manner all the other various outward objects, after impressing their own image on the brain, are capable of combining with one or other of our inner organs to produce a sensation of some kind or other, and subsequently, if associated with other faculties yet to be mentioned, to produce actions corresponding to the same. Over these emotions we have no immediate control, no power of will; we cannot make the heart beat or the glands secrete by any effort of our own, whereas, we can turn our eyes to look, our ears to listen, or apply our nose to smell; but through these outer senses, objects are presented, which, when associated with any of the inner organs, produce sensations corresponding to the particular nature of each one, and in accordance with the object placed before it.

Let us give an example, the better to illustrate this idea. If we see a beautiful apple, or other object attractive to the palate, our mouths begin to water; in other words, the glands begin to secrete in the same manner as they would do if the object were actually in the mouth. This result can only arise from an impression made on the brain, and, by communication, affecting the same organ as the object itself would do if it were in contact with the parts which enable us to appreciate tastes.

This same reasoning may be carried out in connection with all other objects, and the peculiar sensation, or emotion, which each one is fitted to produce, as of love, hate, fear, hope, anger, &c., &c.; in each case the object which we originally see as a fact becomes a sensation when connected with something internal, peculiar to ourselves.

We will now examine these emotions more in detail. Having shown that Individuality and Eventuality are the central organs of the respective groups to which they belong, and which are arranged like an arch on each side of their centre (for all the organs are double), and that the one called Comparison is the centre organ of the intellectual combining organs; we would, further, observe that each respective range or arch, as we go back along the skull, has also a centre to which those on the sides have relation; but henceforth it is no longer a relation of facts, but of emotions, derived from the inter-action of the organs which produce the former with those which give rise to the latter, whose messages are both sent to the brain, the common meeting place of all the nerves from every part of the body; so that the brain may be termed the epitome of the body. If this connection be in any way stopped, the result will be at once apparent. Let the nerve

which carries impressions from the eye, for instance, be destroyed, the brain no longer perceives the objects of which before it had cognizance: destroy the connection between the brain and the body by chloroform, or other means, no sensations, no emotions are experienced; even in cases of drunkenness severe injuries may be inflicted without their being at the time perceived, in consequence of the brain being, as it were, benumbed. All this goes to show that consciousness has its seat only in the brain, and that that is produced by its connection with the body, for otherwise we should have nothing to be conscious of.

All the centre organs represent a state, a unity, and may be compared to the fulcrum of a balance, about which all other parts play; when the balance is at rest, there is no movement, no action: there must be something to draw it aside to destroy the equilibrium. This is done by the side organs which perceive the differences from that perfect state, for all action proceeds from wrongs, or divergency from the state of rest or unity, and the effort to put them straight, so as to restore the balance. Every want not gratified may be called a wrong; hunger prompts one to eat, thirst to drink, cold to cover one's self, heat to do the contrary; want of the necessities of life makes us work, a desire for the good things of this world induces us to try to get money, or to use other necessary means for obtaining that end: a feeling of pain leads us to endeavour to obtain relief, and the sight of poverty and misery in others leads us, through sympathy, to try and relieve their sufferings or necessities.

The centre organ, immediately above Comparison, is called Benevolence (for convenience sake we follow the nomenclature of the phrenologists, though often not agreeing with them); this is the first organ which no longer deals with facts simply, but is rather a state of being, the result of a feeling of harmony, or of well-being, and which, by its calmness, greatly assists the reasoning faculties in working out their results. The immediate side organ of the above centre, called Imitation (a misnomer), perceives everything which tends to promote harmony; there is a sort of sympathetic relation between it and outer things; while the next organ in the descending range, named Wonder, perceives objects or sensations which are of a discordant or incongruous nature, and which are calculated to disturb that harmony; it is especially excited by any thing unusual or strange.

Next to Benevolence, as a central organ, retiring backwards along the skull, is the organ named Veneration, or as we should rather call it, faith, or confidence in the future or

unknown ; it raises us, at it were, out of ourselves ; it is, as St. Paul describes it, "the substance of things hoped for, the evidence of things not seen." This, again, is a state of being, a unity, and is often found associated with heroism, enthusiasm, enterprise, and such like qualities, which require confidence and courage to carry them out. On each side of this organ is one of somewhat similar kind, but of a more vacillating nature, called Hope. This has not the same fixedness as its centre organ, but it seizes, as it were, every circumstance which ministers to faith, and encourages one in the pursuit of any desired object or aim. The next descending organ in this range, named Ideality, also belongs to the future and unknown ; by it the mind forms pictures of that which it cannot see nor know, but which can only be conceived by the aid of perceptions and emotions already experienced ; these images will partake of the nature of each man's particular idiosyncrasy : a Milton or a Dante would have one order of ideas, a Moore another, and a Byron would partake a little of both ; but in all alike it is an idealizing of that which is not fact. This power, however, of forming ideas, is not confined alone to poets ; it no doubt assists in producing ideas, of any kind, before they become facts : so that the bold adventurer and discoverer, the musical composer, the military hero, the commercial speculator, &c., would be equally indebted to this organ for its inspiration.

The next set of emotional organs, as we go backwards, has Firmness for its centre ; here we seem to make a stand ; our ideas and purposes become more fixed, they are not so dependent on the action of outward objects, the conclusions we have come to become more permanently established : those who have it strongly marked are difficult to move, whereas, others in whom it is very deficient are vacillating in their purposes.

The immediate side organ seems to desire to bring other things, or persons, under its own control, to carry out the decisions of Firmness ; this may be done either by persuasion, or coercion ; the first would give rise to argument or oratory, the last to persecution, for the action of this, like of every other organ, is modified by the general character derived from the balance of all the organs, and is as likely to be found in a Luther as in a Philip II. The name given to this organ by the phrenologists is Conscientiousness ; but it is especially misleading, as it induces one to suppose that those under its influences act conscientiously, according to the general acceptance of the term ; but conscience is really the result of education, either by the law, by custom, or by the teaching

we receive when young, united to our own particular nature; so much is this the case, that what is considered right at one period of the world's history is not so at another, what is practised as right in one country is not held as such in another; some think it right to have only one wife, others consider it equally so to have more; some think it right to worship God in one way, some in another, but each one considers his own view of things the only right one. Those, therefore, who have the above organ strongly developed are very earnest in trying to fix their own ideas upon others by every means in their power. This it is which gives rise to so much disputation in public and in private; each individual, or party, thinks his the only right view of things; in Parliament, for instance, one thinks it right to marry his deceased wife's sister, another believes it to be quite wrong; one thinks it right to drink wine, or other spirituous liquor, in moderation, another advocates total abstinence as the only right thing; each one, therefore, may be conscientious according to his own lights in pressing his views upon others, which only shows that conscience is only a man's own way of considering the question of right and wrong in each particular case, and that, therefore, it may often lead to evil as well as to good, according as it is more or less enlightened, and that the means employed are more cruel or more humane. Philip II might be as conscientious when cruelly putting to death numbers of his subjects, for what he considered the good of their souls, or those of others, as Luther was when he endeavoured to convert others to what he considered a better faith; the only difference being, that in the latter case the idea was associated with the milder and the reasoning organs, and in the former with Self-esteem and the more destructive ones: in each case it was the carrying out of each one's particular purposes or views.

Outside Conscientiousness, in the descending range, is placed Cautiousness, or simply Fear, an organ which perceives the slightest thing which threatens danger, or which might affect our state of permanence, as represented by its centre—Firmness. This sentiment of Fear acting in combination with the intellectual faculties, and with another organ just below it, called Secretiveness, would produce Caution. This Secretiveness, which we should rather denominate self-restraint, is an important power by which one is enabled to check action whenever necessary to self-preservation, to conceal our intention, or to abstract our thoughts, as the case may be. An insect restrains action to feign death, for protection; a cat does so when preparing to spring upon its prey;

while a philosopher might do the same when he wishes to withdraw his mind from outward objects.

The organ below the one just mentioned, and immediately over the ear, is called Destructiveness, or, as we should rather designate it, Overcomingness; for this term would appertain equally to its action, whether exercised by moral, or by physical means; in the former instance it would be associated with the higher, and in the latter with the more animal nature of the individual, and would imply in the one case perseverance in any intellectual pursuit, or good intention, and in the other attainment of an object by means of brute force, aided more or less by some of the knowing faculties.

Children mostly destroy at first because they have not yet acquired sufficient knowledge to enable them to use their active faculties in any other way.

We have now taken notice of the perceptive, the intellectual, and the emotional qualities of man, as developed in the skull, all of which represent the action of outer and inner objects upon ourselves, and we have seen where these have become fixed, in the organ of Firmness.

We will now proceed to the next centre organ going back upon the skull, the Self-esteem of the phrenologists, but which we should rather denominate, Self-identification; for it is the *ego* by which we perceive our personal interest in all that has gone before; to this all other ideas tend as a centre, and by it we recognize that it is one's self who is thinking, feeling, or acting.

After this we begin to desire to act ourselves upon outward objects, and not to be merely acted upon by them, as we have been up to this point. It is this Self-esteem which excites us to put ourselves in relation to the outer world by acting upon it ourselves; this self-assertion may be done pleasantly and usefully, or the reverse, according to the combination which it forms with other faculties; and it may be exercised as much in any act of benevolence, as in one of mere personal gratification. All persons who are busy in schemes of charity, or any other useful or noble work, require this quality to enable them to put themselves forward in carrying them out; while any one deficient in the same, however well disposed and capable in other respects, is unable to take any prominent part: he shrinks from publicity and, therefore, can but indifferently display the real talents, or virtues, which he actually possesses.

But while speaking in this manner of Self-esteem, we must unite with it the side organs, the so-called Love of Approbation; for Self-esteem, like the other central organs, is more

essentially a state of being, it is the immediate side ones which excite the desire for action. Self-esteem is self-supporting, and perceives its own rights, in opposition to those of others, or rather, irrespective of them; so that if proportionately too prominent, it makes one selfish and overbearing; at the same time it is absolutely necessary to the carrying out of the will, indeed to the having a strong will at all.

As we descend downwards, and backwards, on the skull, we come to the region appropriated essentially to the organs which excite to and direct action. Immediately below Self-esteem is the organ called Concentrativeness; this seems to accumulate energy, on any point required, and to be very direct in its mode of action; if associated with the perceptive, it would make them keen, and any action ensuing would be quick and accurate; and if connected with the Sentiments, with Self-esteem, for example, it would soon respond to its excitement, and be ready at once to resent an affront; while Secretiveness, to which it is the exact opposite, would suspend action till it allowed Reflection and Caution to determine the course to be pursued.

Combativeness, which is situated on the immediate sides of the organ just described, also excites to action, but it is of a less direct, though of a more combined character; it is probably associated with the sense of Touch, which resides principally, or wholly, in the tips of the fingers; for though we can feel all over our body, we cannot be said to have the sense of touch proper in any other part than the fingers: when we consider the many combined movements we perform by their means, assisted by the arms, we shall not be surprised that there should be a special organ connected with them. Those persons who have Combativeness large, are generally of an active nature, and are very handy, while some others, on the contrary, are very clumsy in their manipulations.

The name which has been given to this organ is again decidedly misleading, for the act which it indicates may or may not be associated with it; if allied to other organs of an aggressive tendency it may take the turn indicated, but if not, the peaceful arts and employments will result from its action.

How many now highly honourable names were originally but nick-names. Take the name Quaker or Shaker; take Roundhead; take the words Whig and Tory, Radical, and a host of others. It would be a curious inquiry to try to find out how many of our expressive words of to-day were originally of the choice coinage known as slang. I am inclined to think a very large proportion would be found to have had such an origin.—*The Study of Words.*

FACE-READING.

Regarded as an art, physiognomy seems to be practised by almost every one. For, though detectives, cashiers, jewellers' assistants, and others whose vocations demand a special habit of scrutinising the countenances of their fellows, excel and become acknowledged adepts in it, yet few among less responsible and more ordinary folk would confess to utter inability for reading that open page, the face. But, though the practice of physiognomy as an art is all but universal, its study as a science is almost unknown; or, perhaps, it should rather be said that the various systems by which it has been attempted to reduce it to a science, and which have been elaborated by some learned theorists, are practically ignored. For the truth is that, just as every one who speaks or writes is a grammarian, without necessarily having studied grammar; and as every one who reasons is a logician, without necessarily having read Whately or Mill: so every one of us is, more or less, in practice, a physiognomist, without knowing anything at all about the works of Baptista Porta and Lavater. In every-day life our skill in this art is constantly being put to the test, and each succeeding generation improves upon the last in familiarity with its use. For, as we travel in the present day so much more than our forefathers, we are brought face to face with more strangers in a week than they ever met in a year, and consequently have infinitely more need than they of being on our guard when brought in contact with our fellow-men. And almost any man, not being born or developed a fool, knows that if he desires to ascertain a fellow-traveller's motive in making overtures of intercourse and companionship—whether indicative of mere *bonhomie* or of ulterior designs upon his personal effects—he has but to scan and read his neighbour's features, and he usually knows how to read them with more or less accuracy. Of course, as all rules proverbially have their exceptions, so, no doubt, an artist in search of the angelic might easily discover subjects for his Madonnas and Gabriels at Portland and Dartmoor; while, *vice versa*, it must often be candidly, if not complimentarily, admitted—

“With all these tokens of a knave complete,
Should lie be honest, he's a devilish cheat.”

Upon a first introduction men usually at once form some more or less definite opinion of the character of their *vis-à-vis*, and the accuracy of their judgment depends for the most part upon their skill as physiognomists. The new acquaintance is at once voted bright or dull, deep or shallow, a knave or a

fool, and a corresponding desire immediately arises to court or avoid him. With women this rapid judgment, with the quick glance that decides it, is so usual that one need but observe the introduction to each other of two ladies to see it in its perfection.

That every passion gives a particular cast to the countenance, and is apt to discover itself in some feature or another, is universally acknowledged; and we need scarcely go further for a good illustration than a certain quarter of London much affected by those whose profession it is to eliminate and annex the contents of other men's pockets. The bird-like expression of old lady bird-fanciers is another well-known and excellent case in point. Addison used to say that he often noticed men curse away for half-an-hour with an eye-ball, and call a neighbour a scoundrel with an eye-brow. He was so fond of framing his opinion of every man's humour and disposition by his looks, that he would employ himself "from Charing Cross to the Royal Exchange in drawing characters." Had he lived somewhat later, he would certainly have appreciated the stairs of the Mansion House Station as a most suitable post for his observations. The ancients, too, all but universally acknowledged the face to be the index of the mind; and Socrates, who was a first-rate physiognomist, is related to have accosted a man of provokingly blank expression, who was keeping silence in company, with this brief and pregnant request, "Speak, that I may see thee." His object seems to have been no less to get the impertubable one's features into motion, than to elicit some character-betraying words from him. Those who have tried to reduce physiognomy to a science, with an established code of laws, have always claimed for the features of a man's countenance that they far more truthfully convey to the surface his innermost thoughts and feelings than either his words or his deportment; and, indeed, that the expression of his face would often give the lie to his speech and manner, when the latter were being used for dissembling.

Baptista Porta founded his speculations upon the theory that whatever remote resemblance a man's face bore to that of a beast—ox, sheep, hog, lion, or any other such creature—had its counterpart in the disposition of his mind, which, accordingly, corresponded, in some degree, with the predominant instinct of the animal he resembled. In the life of the famous Prince of Condé, it is stated that his face was very like an eagle's, and that he was always well pleased to be told so. Hence it may be supposed that the Prince recognized Porta's theory, and understood his courtiers to mean that he

was far-seeing, strong, of royal descent, and so forth. Allusion has been made to exceptional cases where the character gives the lie to the apparent indications of the features; and, certainly, remarkable instances will recur to the memory of most people of really excellent persons, for whom, if the expression of their faces were to be taken for a criterion of their characters, hanging would seem too good; and, on the other hand, of most villainous characters whom Nature has endowed with guileless features, and a smile that is at least "childlike and bland," if not actually seraphic. Cicero tells us that Socrates was one of the former class of face-misleading persons, and that his pupils, by way of a joke, once brought an eminent physiognomist to read his character from his countenance. The latter, little dreaming who his subject really was, unhesitatingly and frankly pronounced him, amid the roars of his assembled pupils and friends, one of the most libidinous, drunken old fellows he had ever set eyes upon in the whole course of his professional experience. And the philosopher, not a wit dismayed, calmly corroborated the uncomplimentary verdict, asserting, that by nature, he was inclined to all the vices which the other had read in his countenance, but that he had conquered his natural bias by the dictates of philosophy. This story serves to illustrate the risk people run from a too implicit confidence in the infallibility of face-reading, of misjudging their fellow-men. It frequently happens that dislike, and even hatred, are conceived against some individual on the score of his "looks" who upon further acquaintance is held in the highest estimation; an uncharitable tendency which is reckoned by Dr. Moore, in his "System of Ethics," to be among the lesser vices in morality.—*Globe*.

REMARKS ON DR. GALL'S THEORY CONCERNING THE ORGANS OF THE BRAIN.

BY DR. C. W. HUFELAND.

It is with great pleasure and interest that I have listened to Dr. Gall's own statement of his new doctrine. And I am fully persuaded that he belongs to the most remarkable persons of our age, and his doctrine to the boldest and most important advances that have been made in the study of nature.

It is necessary to see and hear him himself, in order to perceive how far removed he is from every kind of quackery, metaphysical enthusiasm,* and the spirit or party. Ended

* In the original the author says, *transcendental* enthusiasm, a term which

with a rare spirit of observation, acuteness, and the talent of deduction; brought up in the bosom of nature, and by constant intercourse with her, become her favourite; he has detected a number of phenomena in the whole circle of organic beings which have hitherto been not at all, or but superficially observed. He has ingeniously combined these observations, discovered their analogical relations and import, deduced inferences from them, and established certain truths, which are particularly worthy of our notice, because they are the pure result of observation alone. It is thus that he has contemplated the properties, connections, and functions of the nervous system. He himself ascribes his discoveries alone to his having devoted himself to the study of nature with his senses awake, and his understanding unprejudiced; and to his having regularly pursued the operations of nature through all their gradations, from the simplest to the most complete exhibition of plastic power. It is hence unjust to call this doctrine a system, or to judge of it as such. The genuine observers of nature are bad system-makers. They could not see so correctly did they set out in their inquiries with a system ready formed in their minds. They would misunderstand the real objects they contemplated if they troubled themselves too much about unity of idea. Hence Dr. Gall's doctrine is nothing but a collection of instructive, and, in part too, unconnected observations of the phenomena of nature, with their immediate deductions. Nor does Gall himself wish that his assertions should be seen from any other point of view.

It would be yet too soon to attempt criticising and judging the theory decisively. All that can be done is to subject the particular assertions to a long and experimental examination.

My object here is merely to state a few remarks and doubts. For examination should begin with doubt and incredulity, and so it began with me. There cannot be found a more decided adversary of Gall's doctrine than I was; nor was it till I remarked with what profundity of research, and genuine love of truth, the author of these discoveries proceeded, and what pregnant truths his doctrine contained, that I began to be a believer: still I am far from being entirely convinced of its truth. There are chasms, vague positions, and inadequate proofs to be found in it. And I consider it to be my duty towards Dr. Gall, and towards that truth which

cannot briefly be explained. Gall and Hufeland are alike hostile to the modern metaphysicians; and the compliment here paid to Gall is in fact merely a sneer upon the disciples of Kant, and the other metaphysical leaders.

is the object of his search, freely to point out these to his attention.

It is necessary, in judging of Gall's opinions, carefully to distinguish what is anatomical, which respects the form and structure of the brain, from that which is physiological, and concerns its functions. The first treats of objects of sensible perception, and can therefore be ascertained to be true only by being sensibly perceived. The second contains the results of perception, derived from various phenomena, by induction and inference. Assertions of this kind must always be considered as hypothetical, and the truth of them can only be determined by an examination into the inferences and their premises.

First, as to the matters of fact. What has Gall shown us in the structure of the brain which we did not know before?

This has been so correctly stated by Professor Bischoff, in the first of the preceding chapters, that I have nothing to add but that I have, without the aid of Gall's preparations, and by means of dissections which I myself made, convinced myself in a great degree of the truth of his statements; more especially as far as respects what he calls the diverging nerves. I have seen the separation of the *medulla oblongata* in fascicles; the crossing of the inner pair of the pyramids; the passage of layers of longitudinal fibres, mixed with fibres running across, through the *pons varolii*; the transition of this substance into the *crura cerebri*; the oval form and quality of the *corpora striata*; the radius-like spreading of the substance of the nerves, in all directions on the surface; the unfolding of the brain into a skin, or rather its being spread into a broad surface; and the origin of the optic nerves in the four eminences. All these are objects with which we were either altogether unacquainted, or which we at least did not know exactly and in connection. And even if we admitted that Gall had discovered nothing new in the external form of the different parts of the brain, yet it is undeniable that he has cast a new light on the internal structure and connection of those parts; and this alone would be enough to immortalize his name. Every one who has eyes to see may convince himself of this; but it is, indeed, necessary to practise the method of anatomical inquiry which Gall has used, and without which he would never have made his discoveries: that is, first, by beginning the examination from below at the *medulla oblongata*, and pursuing it as it spreads above: and secondly, in using, not a knife which destroys the parts, but blunt instruments, in order to separate and unfold the pulpy parts. I leave minuter examinations of

these anatomical discoveries to greater anatomists than I profess to be ; but I would have them honest examiners, persons who do not confound the doctrine with him who teaches it.

Here I shall confine myself to what is hypothetical ; and as every thing which cannot be sensibly demonstrated may be brought under this head, we shall meet here with much that is called anatomical, as, for instance, the course taken by the various congeries of brain.

This too has been completely stated by Professor Bischoff, so that I have nothing to add to it, and can build upon it as forming the essence of Dr. Gall's doctrine.

I entirely coincide with Dr. Gall in this, that what is spiritual or intellectual in us, operates by means of organs* (which, indeed, every voluntary motion of the arm proves) ; that this material condition of the exercise of our intellectual powers applies not merely to the grosser faculties, but to the more internal and subtle energies, sensations, ideas, &c., that the brain is the organ of these more essential and elevated powers of the mind ; and that we may assume with great probability, that as the external senses have their particular organs, in like manner the internal sense may have its various organs in the brain, as is indeed intimated by the variously formed and different substances in the brain. But this opinion is not new or peculiar to Dr. Gall, but has been long and frequently asserted by medical men. Dr. Gall himself admits this, and cites particularly the late Dr. Mayer.†

* Few will probably be found in the present age, who venture to dispute this position, in spite of the very vague and indistinct notion we form of organs. The reader will be amused by comparing with this opinion that of the eloquent Sir Thomas Brown. In his *Religio Medici* he says, with that peculiar felicity of style which renders him one of the finest writers in our language, as he is one of the most original thinkers of our country : "In our study of anatomy, there is a mass of mysterious philosophy, and such as reduced the very heathens to divinity ; yet, amongst all those rare discourses, and curious pieces, I find in the fabric of man, I do not so much content myself, as in that I find not, there is no [any] organ or instrument for the rational soul ; for in the brain, which we term the seat of reason, there is not any thing of moment more than I can discover in the crany [cranium] of a beast ; and this is a sensible and no inconsiderable argument of the inorganity of the soul, at least in that sense we usually so conceive it. Thus we are men, and we know not how. There is something in us that can be without us, and will be after us, though it is strange that it hath no history, what it was before us, nor cannot tell how it entered in us."—EDITOR.

† As a proof how long I have been of Dr. Gall's opinion, even without knowing him, I cite the following passage, which I wrote fifteen years ago :—

"I hope my readers will not here misunderstand my meaning, and imagine that I reckon the soul to be a part or production, or property of the body. This is by no means the case. The soul is, in my opinion, something totally distinct from the body, a being of a totally different, more exalted, intellectual world ; but in this sublunary combination, and in order to be a human soul, it must have

But I am of opinion that we ought to distinguish between the spiritual substance in us, in as much as it has a reference to the world without us; and is to be put in connection with it; and this same spiritual substance, in as much as it is conscious of its own energies, reflects on them rationally and freely, determines itself, wills, orders, and brings unity into the variety of its perceptions. These higher, peculiar operations of mind, are most assuredly not attached to or modified by organs; and this is also admitted by Gall completely, when he asserts, "I know no organ for reason, will, consciousness, memory; for these faculties belong to all organs, are bound to none in specie, but are the common characters and qualities of the whole."

Besides, he himself calls these organs only conditions and predispositions of certain energies, which, of course, supposes a something else as necessary to call forth those energies into action; that is, he supposes a certain spiritual substance, but

organs to fit it, not only for action, but also for sensations, and even for the higher functions of thinking and combining ideas. The first cause of thought is, therefore, spiritual; but the business of thinking itself, as carried on in this mortal machine, is organic. In this manner alone can be explained that mechanism, in many of the laws of thought, and the influence of physical causes in improving or disordering the function of thinking; and one may consider the function as material, and cure it (a circumstance which often occurs to us physicians) without being a materialist; that is, considering the soul the first cause of it, as matter, which, to me at least, appears to be absurd."—*Art of Prolonging Life*, v. 1, p. 203.

There are still more striking resemblances to Gall's ideas to be found in "Mayer's Treatise on the Brain," the spine, and the origin of the nerves. Berlin, 1779, I will quote only a few passages:—

P. 36. "The *pons varolii*, the *medulla oblongata*, and the *medulla spinalis*, are the parts of the brain which the Creator has most closely connected with life."

P. 38. "It may be asked, do the operations of the different powers of the soul take place in different parts of the brain, especially organized for that purpose? This is rendered probable by the partial loss of particular powers of the soul, by disease and by wounds."

P. 41. "I see no contradiction in assuming, that each of the operations of the soul takes place in particular departments of the brain. As the particular parts at such a spot become, by the more frequent repetition of their operation, more developed, the impulse of the juices there will be increased," (consequently their size enlarged.)

P. 43. "It is a much more probable opinion, that the functions of the soul are performed in the parts of the brain itself, rather than in its cavities, &c., but it would be an extremely rash undertaking to attempt fixing, with certainty, the seat and disposition of the various faculties of the soul."

There is good plain sense in this note of the learned professor's work; but it cannot pass for a moment as a specimen of metaphysic correctness. We may assume an organ as a connecting instrument, to bind an immaterial cause with a material function, (though this is incorrectly said, for function is merely *ens rationis*, a thing of thought.) But this explains nothing, for the organ itself must be either material or immaterial; if material, what unites it with that which is immaterial? and *vice versa*. The *quis custodiat ipsos custodes* of the poet, comprises the great practical difficulty in all political institutions; something like it is the case in metaphysical speculation; who shall explain the explanation?—ED.

the nature of which is foreign from the subject of his inquiry.

But Gall goes further and says, these organs lie on the surface of the brain ; that continuation or extension of the nerves of the brain which we call the hemispheres is their seat, and I am able to point out the place of the greater part of them : further, they are denoted by elevations on the surface of the brain, which effect corresponding protuberances of the skull ; and we are therefore enabled to infer the internal tendencies of the mind from the external form of the skull. The proofs have been stated above.

Upon this I will take the liberty of stating some remarks and doubts, which at least prevent my considering the point as absolutely decided.

I. The whole is and remains but an hypothesis, to whatever high degree of probability it may be brought, for the proofs advanced do not exhaust the subject, nor remove all objections.

The principal proof brought forward in physiology to ascertain the function of an organ, consists in showing that the actual exercise of the function always accompanies the existence of the organ, and that, on the contrary, the destruction of the organ entirely or partially destroys or impedes the exercise of the function. This proof is more or less convincing, according to the number of individuals, and still more according to the various kinds of organic beings, in which this coincidence has been found. As for instance, the function of the nerves, as organs of motion and feeling, is proved by feeling and motion being destroyed by the cutting or pressing the nerve. It may be asked, has Gall been able to bring forward this proof concerning the organs of the brain ?

It seems to me that he has not. For however striking it is to perceive, that through the various classes of animals, up to man, certain tendencies and predispositions, of the soul are, for the greatest part, found united to certain protuberances of the skull ; yet the proof, to be decisive, ought to be without a single exception, for Gall himself admits, that the law must be false, if a single exception can be found ; and I have found such exceptions repeatedly since I have begun my examination. I will mention only two. Prominent eyes (goggle eyes) denote, according to Gall, a strong verbal memory, yet I have seen such eyes, repeatedly, in persons whose memory of this kind is very weak ; and I lately met with the organ of theosophy very strongly marked, like a ball, in a person who did not manifest the least disposition of the kind.

As to the second proof arising from the want of the function where the organ is wanting : here it ought to be shown that

the destruction of the organ is attended by the loss of the function, but a wound on the brain is so easily mortal, that this kind of proof seems impossible. In cases of wounds, we have instances of large masses of the surface of the brain (and of course organs, according to Gall,) being taken away, and the individual has survived. But I am not aware that any one of these persons has been observed to lose any of the predispositions, or tendencies, or talents, affixed to the part of the brain so lost.

II. Size and Energy do not always stand in proportion to each other in an organ. The internal quality, and the more or less of power lying in the mass, determines also as certainly the energy of the power; and quality is able to supply what may be wanting in extent or quantity. This is the difference between intensive and extensive perfection, and it is therefore an error to infer perfection from size alone. This is also taught us by experience. Little men are, in general, more energetic than large men, and small eyes see with more strength, and last longer, than great eyes. That which is true of other organs must * also be the case with the organs of the brain. The greater or less power in an organ cannot, therefore, depend on its size alone, yet Dr. Gall's doctrine is supported entirely by this proposition.

III. It is well known that organic parts are often enlarged by disease, but which, far from being a proof of heightened energy, show only that the nourishing juices of that part have been increased by disease; and the energy of the functions of such organ is diminished, not improved. They are called hyperorganisations, enormities of the substance. Thus the liver, stomach, heart, any one of the viscera, an arm, an eye, a foot, may be unusually enlarged, but we infer a diminution, not an increase of power. A similar state of things may take place among the single organs of the brain, and should we not err then, in inferring an increase of power from an increase of size? Nor would it be a refutation of such an argument to object that only one of such organs would be in that case enlarged; for it often happens, that corresponding organs and limbs are alike affected; as both eyes and both feet may swell together: besides, there are organs in the centre of the brain which are but single to the feeling.

IV. A change may take place in the interior of an organ, occasioned by disease, by which its energy may be destroyed;

* Our commentator is surely guilty here of a mistake (from which Dr. Gall himself will not be thought free), in confounding must with may. His argument in fact is sufficiently strong, when he concludes there may be an extensive vigour independently of size.—EDITOR

or in other words, the organ may be lamed. But the size of the organ is not changed, or at least the protuberance of the skull is not flattened; and even where the organ disappears within, the skull does not always sink, but the space is filled with bone. Here again, therefore, we can draw no inference from the existing protuberance to the existing power; and even the substance of the nerves, when lamed, can long retain its size and extent, as we experience in the external nerves.

V. We will admit that the skull, not only at its first formation, but even during the whole of life, assumes the shape of the brain within; this is proved partly by the law of the never-ceasing regeneration even of the firmest parts, partly by the remarkable instances of excavations and change of form in the hardest bones, by means of tumors, aneurysma, &c. The internal surface of the skull clearly shows the impressions of the vessels which lie below.

Still, this does not seem sufficient to justify our considering all the protuberances of the external surface of the skull to be products of the internal expansive power of the brain. My reasons are these:—

1. The two laminae of the skull, do not, it is obvious, always run parallel. This is shown even by an horizontal, and still more by a vertical section. This may be exhibited most sensibly by the following experiment. If the external elevations of the skull are the mere result of the form of the brain, then the internal surface of the skull must have corresponding depressions wherever the external surface has any elevation. Hence, a model of the skull, taken in gypsum or wax from the internal surface, would have precisely the same formation as the skull, except that it would be somewhat smaller. I have repeatedly made this experiment, and have in some remarked a sensible diversity between the skull and such impression.

2. Various causes may occasion the bony substance of the diploe to accumulate, and consequently remove the external from the internal lamina, and form an elevation where there is no corresponding depression.*

3. It is certain that the muscles have the effect of producing a protuberance on the bones. This is seen on the whole body where the muscles are attached, and this must also take place on the skull; and thus the protuberance on the spot where the temporal muscle is attached, and that where the muscles of the *os occipitis* are attached (the organs of parental affection and the sexual passion), are on no account to be considered

* This is asserted by Gall himself; and it ought to be observed that this and the preceding objections are directed more against the certainty of our knowledge than the reality of the fact.—EDITOR.

as product and proof of the quantity of brain. The protuberance on the temple often proves only that a person chews strongly, and the organ of parental affection, that a woman has borne heavy burthens on her head and shoulders. *

4. The protuberances on the lower parts of the *os frontis*, over the eyes, are clearly derived more from the internal extension of the bone, which we call the frontal sinues, than from the brain; and thus our judgment concerning the organs which lie here is very fallacious. I have seen skulls in which these sinues are extended half over the *os frontis*.

5. It is undeniable that external and internal accidental causes may produce protuberances on the head. Of external causes I will enumerate only blows and falls; of the internal, the gout and venereal disease, which it is known can produce protuberances that last for life. Gall says, that such protuberances may be sufficiently distinguished from those natural organic protuberances, by being on one side only of the skull, and not alike on both sides. But this will not prevent deception in those cases where the organs on both sides meet, and unite and form but one elevation, as for instance, the organ of Loftiness, Theosophy, and Parental Affection.

I wish, besides, that exact inquiries were instituted in those countries where it is the custom, from the earliest infancy, to carry heavy burthens on the head, as for instance, on the banks of the Rhine. A permanent pressure from without must necessarily, according to the same laws, press the skull inwards (and thus hinder the formation of the organs in this part), as the permanent pressure of the brain from within presses the skull outwards. The latter is a fundamental position of Gall's doctrine, and if that be true the other must be true likewise. Hence, in those countries the organs of Loftiness Theosophy, and Firmness must be oppressed, and those tendencies of mind and character must also be wanting, for the organs are mechanically hindered in their formation: if, therefore, the organs were found there in spite of that pressure, or if those organs were not found, and those qualities of mind were still there, in either case it would furnish an argument against Dr. Gall; for, in the first supposition, it would appear that a permanent pressure does not alter the formation of the skull, and thus the formation of the skull by the pressure of the brain would be unproved. In the second supposition, it would be evident that the qualities of the mind could exist without the external visible organs, and then the whole doctrine of organs would be false. †

* This objection has been anticipated and answered.—EDITOR.

† Here the author has either grossly misunderstood Gall, or he is guilty of a

VI. Dr. Gall confesses that he is not acquainted with every organ and its seat, and there are unquestionably many qualities of the mind and temper remaining, for which no organ has yet been found, and which yet must have one; as these qualities are not artificial productions, but manifest themselves in earliest infancy, very strikingly, as predispositions or tendencies of character; as for instance, Self-love.† It is a quality we often remark in very young children, that they refer everything to themselves, keep everything for themselves, part with nothing, and are envious towards others; while on the contrary, we perceive in other children, from the very first, an impulse to forget themselves, to share everything with others, be kind and social. Vanity, rapacity, avarice, love of fame, are but products and various forms of selfishness. Self-love ought, therefore, to have its organ, as well as the love of others, and the impulse to murder would then be explicable as a disease. Taste and smell ought, besides, to have their organs in the brain, as well as the sense of tones and colours, for our taste and our judgment concerning it are evidently different things; nor does it seem to me that opposite qualities can be well explained, as Gall explains them, by the mere want of organs. The want of good humour is mere indifference, not actually bad temper; the want of love is not hatred; nor the want of avarice liberality. Must we not assume that these opposite inclinations have each their peculiar organ? And what, if we perceive that an inclination suddenly changes itself into the very contrary, of which we have instances? If we see a liberal man, on suddenly acquiring riches, become avaricious, has a new organ sprung up within him? This is not conceivable.

Whether these still unknown organs be found or not, we must assume that they really do exist, and in both cases a troublesome difficulty arises.

If they are not found, this renders it very uncertain what functions we shall ascribe to the organs already found, for it may then, aye, it must then, follow, that the departments of

great error in reasoning. Gall asserts that the inert bony substance is formed altogether by the brain; not that it reacts upon it with like power.—EDITOR.

† That Self-love is no simple principle of our nature, as has been long incautiously admitted and taken for granted; upon which assumption modern systems of morals have been established; has been recently proved with all the strictness of metaphysic demonstration by a train of acute and original arguments in a small work, entitled, "An Essay on the Principles of Human Action," published by Johnson. This little tract has supplied one of the greatest desiderata in moral philosophy. The author has succeeded in proving, to the logical understanding, a doctrine which the better feelings of noble minds had embraced in opposition to the fashionable opinions; that man is capable of purely and absolutely disinterested actions.—EDITOR.

the skull already ascertained to cover certain organs, must also cover at the same time other organs; and who will then be able to distinguish what belongs to the known and what to the unknown organs.

Should, however, these organs be found, we shall then at length find the surface of the brain so covered with organs, that the districts assigned to each will perpetually become smaller, so that it will become impossible to distinguish them by feeling.

To this we have to add, that Dr. Gall assumes that each circumvolution of the brain (*gyrus cerebri*) is a distinct organ; in that case there would be thirty organs on each side; and the *gyri cerebri* do not, as is well known, press upon the exterior surface of the skull.

PALMISTRY.

Herbert Spencer begins his first principles of philosophy with the broad thesis that there is a soul of truth in all religions, without which they could never have existed. His thesis may be carried still further. At various times in the world's history different supernatural systems have been current, which from time to time have paled only to appear again in another century. The belief in necromancy, in ghosts, in witchcraft, in chiromancy, has at one time been general. May it not be possible that there was some minute grain of truth in each, combined with much falsehood, without which it could never have subjugated human belief? One of the occult sciences which is at present suffering a revival is the "science" of palmistry. Two works on the subject, one popular and the other more complete, have recently appeared. These would not have appeared had there not been a distinct revival of interest in the subject. Rosa Baughan, the author of one of these books, says that in Paris she was shown casts of the hands of Victor Hugo, Dumas, Lamartine, and other French celebrities, and in all the lines and mounts showed exactly the qualities which the owners possessed.

It is not necessary, however, to seek such eminent instances. A glance at one's own hands, or at those of a few friends with the incidents of whose lives we are intimately acquainted, will almost invariably demonstrate the truth of the broad principles of chiromancy. Take for example the "mount of Venus," which is supposed to occupy the mass of fleshy tissue at the base of the thumb. In a person with a strong, vigorous constitution the blood vessels will be full. There will also be a fair deposit of fatty matter, making as it were a soft cushion

on this part of the palm. Does it require anything supernatural to divine that such a nature will be naturally strong in its affections and instincts? If the form be accompanied by a sensitive temperament, is the gift of prophecy requisite to foretell that such an individual will undergo and suffer a great deal, and form some attachment which will dominate the whole life?

Take another instance. The constant employment of the hands in violin and harp playing, in moulding, and other artistic work, spreads the point of the finger and makes it "spatulous." Is there any black art in suggesting that the finger is generally inherited from some ancestor, and is accompanied by the relative talent? That much of the system like the mount on the left base of the right hand—the "mount of the moon"—is mere moonshine, is possible, but that the hand is the reflex of the brain so far as material objects are concerned is doubtless true, and it is only where it has been attempted to carry the theory into the sphere of psychological attributes that the system seems to break down. Yet even in these a negative law may operate. It is said that a narrow thumb indicates a weak, indecisive character. Several generations of hard, earnest work, will undoubtedly increase the size of the hand and thumb. But several generations of country life tends also to produce a powerful, earnest character. The two co-exist, indicating each other as they proceed from an identical cause.

Another instance is the "mount of Jove," which is placed at the root of the first finger. Now, on the hand of a man who does no manual labour and who eats and drinks luxuriously the skin will become soft and ductile. The blood vessels will be overfilled, the tissues will be liable to swell from excess of stimulants in the blood, and these causes will increase the natural pad or cushion which Nature places at the root of each finger, and especially the first, where the counter-resistance of closing the hand is least. Turning to the psychological side, we ask what effect will an idle, self-indulgent life have on the individual? Will it not produce a self-seeking, dominating and self-willed character, a tendency to command, a dislike of control, and a disposition to regard everything from one's own point of view. Yet this is precisely what the chiromancist professes to read in the "mount of Jove." Where such a character is combined with strong combativeness, great energy and vigour, is there any occult science required to tell that such a man will rule or ruin any cause with which he may be associated? Again, take a dry, skinny hand with little flesh on the bones, the product of a slow

circulation and weak assimilative powers. In such a hand we may read that the mind will most likely rule the body because the passions and appetites will be feeble and easily controlled; and that the individual will take a calm and dispassionate view of life. What "science" is required to foretell that such an individual will have an equable existence and pass calmly and quietly through life?

It may be fairly argued in all these cases that the same cause has produced a mental and anatomical product in the individual, and that the two are correlatives—not cause and effect.

FIFINE AND HER FRIENDS;

AN ATTIC CRUSOE.

BY CAVE NORTH.

CHAPTER XXIII.

RAUBVOGEL FAINT-HEARTED.

The sixth day passed over very much like the previous ones. In consequence of Beauty's dexterity and lack of principle combined, Fifine was well provided for the day. On Sunday she had gone dinnerless, but as soon as it was dark she sent him for her daily roll. This was between eight and nine—the general supper time—and consequently the time when he was the least likely to meet any one on the stairs. How he escaped without being seen was a marvel, seeing how many people used the stairs. He was, of course, generally favoured by the darkness, not only outdoors, but on the common stairway, which was only dimly lighted by oil lamps, so that, even if any one happened to come out of any of the apartments while he was ascending or descending, it was an easy matter for him to slink into a doorway, or a corner, and hide until he or she had passed.

He was back again with the roll in a few minutes, and after a morsel for his own tooth, he was sent downstairs. Fifine, however, had hardly taken her seat in the leathern arm-chair before she heard the dog's well-known demand for admittance. Feeling that he was trifling with her, she went to the door with the intention of scolding him: her petulance was speedily turned to laughter, however, when she saw what had brought him back—a chicken, cooked to a turn, and only minus one wing.

"Oh, Beauty, where did you get it?" cried Fifine.

Beauty made as if he would bark, but did not.

"I shall have to school you in the eighth commandment when we get back into civilised life," said Undine; "you are getting too dreadful. And yet," she thought within herself, "a bit of chicken won't be quite ungrateful in the morning."

This night Fifine felt lonelier than ever, for during the day the

storks had started on their annual migration. For a day or two they had seemed troubled; at night they had been restless, while during the day they had kept flying high up into the air, and circling round and round. All the morning they had seemed more than commonly troubled, and about mid-day they rose with peculiar cries into the air and, after wheeling round a few times above the house, sped off southwards, to be seen no more until spring.

Fifine was able to see them through one of the windows in the roof, without running any danger of being seen from the street, where a good many people were standing about watching the great birds when they started on their distant journey.

It was a fine sight to see them spread their broad wings, soar high into the sunny air and, turning their beaks towards the Midland Sea, sail away with a motion that laughs at man's puny power of progression.

"Ah!" sighed Fifine, when she had watched them till out of sight, "if I had but your wings and your strength, how quickly I would escape from this imprisonment!"

When Beauty had been finally got rid of, Fifine took her seat by the rickety table, and tried to read, but somehow she could not keep her thoughts on the book, they would go a wool-gathering. Now, it was the people below stairs that occupied her thoughts; she wondered what they were doing, and what they thought about her, if at all, and hoped they would think charitably of her—more charitably than the people had thought of Old Knütz.

"Poor Knütz!" sighed Fifine, "who knows what he may have suffered and endured! Perhaps there was sheer inability on both their parts, his and his wife's, to live amicably together, try as they would. She believed there were people so constituted, or become so through disease and the world's trials. And knowing this, they may have agreed to live apart; that is, as far apart as was possible in one small garret. That there was still between them something so near akin to love as kindness and pity, showed how far they were from hating each other. The poor woman's sufferings had made life unbearable, and she had determined to rid the world and him of her presence; but in spite of this she could brush his coat and hat for him, and place them in his hands. Perhaps she may have smoothed down his collar in order to touch him once more. Who knows? The old man's "last words" did not go into details. Her small service touched him; it haunted him as he went downstairs, so that he must needs stop half-way down, and ask himself if he had not better go back and see if he could do anything for her. Perhaps he really wanted to go back and smooth her hot brow, and say a kind word to her; but he was shy or ashamed, and put it off, thinking he would do her some act of kindness when he returned. "I wish he had gone back," said Fifine to herself.

Then she pictured to herself the old man coming home, and finding the companion of his misery dead; whereupon the thought of the old love they had had for each other, and the misery they had

wrought for themselves out of it—and yet not they altogether—broke his old heart. "I cannot live here without her," he said, and determined to follow whithersoever she had gone.

"Oh," thought Fifine, "if after their rash death they could meet their own natural selves, freed from the pains and insanities that earth-life brought upon them, perhaps they might run together, and clasp each other like a couple of children, and smile through their tears at the remembrance of their sorrow!"

Steeped in these sad musings, Fifine found the time pass quickly. She heard the Dom clock strike eleven and then chime the half-hour before sleep shut up her senses for the day.

While Fifine was thus occupied in her attic Juan Fernandez, our two worthies of the guild and brotherhood of Autolycus were disputing together. After the several failures that have been noted, it had been decided that the attack on the supposed minting-house of the Gastwirth, should take place without fail on this night. Gold-whistle had induced himself in the habiliments of a larger body and soul than his own for the purpose, and felt like one who had invested himself in armour for a great emprise. However, when the time came for action, Raubvogel pretended that he thought the hour too early, although the light was already in the garret window (albeit but dimly seen through a slit in the blind), and the secret work, whatever it might be, going on; he pleaded for an hour's delay, which the flautist unwillingly accorded; then, when it was again time to march, the owl-eyed bird of prey was once more ready with an excuse for postponement. "He felt something in his bones," he said, "which warned him that this was not the night for the venture, and that they ought to put it off until to-morrow." Goldwhistle was very angry with his companion, but the fact that he was to a great extent dependent upon him, caused him to give way, although with an ill-tempered growl. To put him in good humour, however, Raubvogel fetched in eatables and drinkables, on which they feasted themselves in silence, as is the manner of their class, and then spread themselves out in horizontal stupor and helplessness.

So the Prediger-Haus slept in peace for another night, and the ghost of the garret was undisturbed.

CHAPTER XXIV.

THE GHOST.

On the seventh day, as we already know, Beauty's actions were observed by Fritz, with the result that Fifine's secret was discovered. She had only been thinking, as she ate her frugal breakfast, how completely isolated she seemed to be in her attic solitude, as though quite cut off from the world. The noise of the street came up to her like a distant murmur; while as to the rest of the house, she seemed to be so lifted above it that neither voice nor footstep could be heard, nothing indeed except an occasional dull sound from the Grossbein regions. It seemed, too, as though she might continue to

live there as long as she liked, provided Beauty were not discovered and her money would last.

Contrary to her usual custom, Fifine had allowed Beauty to go to the baker's in the early part of the day, and after taking the roll from him had at once dismissed him. To her great surprise, however, he presently came back again, or so she thought, and made an unusual scratching at the door. On opening the door, however, what was her surprise to see, not Beauty, but the poor little cripple, Fritz. While she stood gazing at him, too much astonished to speak at once, the boy hobbled into the room, and after closing the door, stood against it and laughed till the tears ran down his cheeks.

"What is the matter?" asked Fifine, when there seemed to be no likelihood of an immediate term to his laughter. "Did you spy me out to come and laugh at me?"

This reproach had the effect of checking the boy's laughter and changing the nature of his tears.

"Dear Fritz," said Undine, kneeling down by him, when she saw the effect of her words, and comforting him, "I did not mean that; don't cry; I know you only came out of kindness, but you scared me."

Fritz wiped his eyes. "You must not be cross," he said; "you would laugh if you saw yourself; at least you would if you could be in my place."

"Why?" asked Fifine.

"Because your face is almost as black as a sweep's, and your hair is all rough and tangled," replied Fritz, ready to burst out again into laughter.

"Oh, I never thought of that," said Undine, with a faint smile, smoothing her hair with her hand. "But tell me," she continued, the smile fading away, "how you found me out, and if any one else knows where I am?"

The boy told her how he had only just discovered her retreat, and by what means.

"Dear, good Beauty!" exclaimed Fifine; "I should have died but for him. He brought me everything I had."

Then leading the astonished Fritz into the other room, she showed him where she had spent the past anxious week.

"But why did you run away and come up here?" asked the boy, when he had taken a rapid look round. "The house is not like itself, and everybody has been so troubled! You will come down now, won't you?"

Fifine shook her head.

"Come down at least for a minute or two and warm yourself at mother's fire. There is no one in."

"I dare not," Fifine replied, "at least until I know something: and you must promise me you will not tell any one where I am until I give you leave. You must know it is a matter of life and death to me. If you will promise not to betray me, I will tell you all about it—that is, as much as you can understand."

Fritz promised, but stipulated, before he would consent to hear anything, that she should let him get her anything she required. Ffine said at first she wanted nothing; but Fritz smiled again, and mentioned soap and water; whereupon the recluse consented to allow him to bring her those necessities—her provision of water from her improvised rain-tank being precarious, and not of the best quality. Fritz soon returned with a pitcherful; as well as with a roll and some butter. Ffine told him he need not have brought her food, Beauty being such a good provider; he would not, however, take it back. He then descended again, and after a while brought up several other articles which Ffine had said she would like to borrow, including a comb and several other requisites for the toilet, for which Ffine was so grateful that she at once set to work to make a transformation in her appearance.

Meanwhile Fritz, who had taken a hasty survey of the apartment, made another descent, and presently returned with an old white counterpane, saying it would help to keep her warm these cold nights.

"Oh, the old garret is very warm," replied Ffine; "and I have not really suffered at all from the cold."

It gratified Fritz to see the metamorphosis these things had enabled Undine to make in her personal appearance; but he could not help noticing how thin and pale she had become. Her eyes seemed preternaturally large and lustrous, and with her bright aureole of golden hair, reminded him of some of the saints whose pictures he had seen in the city museum.

As it was now getting towards the time for Wendel to come home when she was out working, Ffine made Fritz descend, agreeing however to allow him, and indeed asking him, to be sure to come up again as soon as he could do so without causing remark. She was sorry when he had gone that she had not made some inquiries as to the position of affairs in the Bromm household; but the time had gone so quickly, and she had felt such a difficulty in explaining her situation to one who was still but a child, that she hardly knew how to begin.

She had hoped that the whole history of the last day's doings of the entire Prediger House colony would fall from his lips without question put; and probably in time it would, but Fritz's solicitude was first of all so taken up with her material comfort that she had been content, as we most are, to let the smaller and more easily accomplished affairs take precedence of the weightier and more difficult.

Indeed is it not the case that the whole menagerie of us—men, women, and children—defer the difficult tasks until the easy and pleasant ones have been finished, or at all events as long as we conveniently can? Nay, if it had not been for this natural weakness of the human animal to take the facile, and presently agreeable path, would any of us get into so many tangles as we do? But for this would Ffine herself have been thrown into her present straits?

The little she had gathered from the boy almost decided her to present herself at Bromm's door and, like the prodigal, ask to be re-instated in their home and their affections. Until now, although she had thought a great deal about her adoptive parents, her own terror had ended by swallowing up all other feelings. She now wept bitterly at the thought of the sufferings they had undergone for her sake, and resolved that they should last no longer than she could help. The thought was brooding in her mind all the afternoon and evening, and at night the impulse became stronger and stronger to go down and present herself; but still the one all-consuming dread withheld her, the dread lest the flautist might still be there—the one being in all God's earth whom she feared!

All the evening she entertained, or encouraged, the hope that Fritz would come up again, and she listened with ears on the stretch for the slightest sound. Mingled with her desire to see him, however, was a fear lest the clue which had been sufficient to conduct one to her hiding-place should prove an Ariadne-thread to guide the rest of the household to her labyrinth. Although she was anxious to learn from Fritz the position of affairs in the Claus Bromm dwelling, and indeed looked upon his appearance on the scene as a means of solving the great difficulty of her situation, by enabling her to know when danger was past, yet she could not help chiding herself for her carelessness in departing from her usual caution in only allowing Beauty to go to the baker's after dusk. However, she had risen from her couch that morning with what was for her a fierce hunger, which had induced her to depart from her usual course, and let Beauty venture in the broad day on his diurnal visit to the worthy baker's. She had had barely time to munch a few mouthfuls before Fritz's imitation of the dog's signal surprised her into betraying herself.

Fritz's visit had added considerably to her store of creature comforts. She had now a small provision of bread and butter, some coffee and sugar, a whole candle, and a box of matches. In these, and a few additional etceteras which Fritz's thoughtfulness had provided, she seemed to be possessed of untold wealth. No one who has not known what it is to be without such things can possibly imagine the pleasure it gave the dear creature to count over her treasures, and to reckon how long she could hold out with them.

About his usual hour—that is, when most of the compound household were busy at supper—Beauty arrived, and as there was no bread to be fetched, he sat quietly by his mistress's side, and watched her light a fire; for partly because it had become cold after sunset, and partly because she fancied a cup of coffee, Fifine had decided to make one. As good luck would have it, it burned up without any trouble, and in less than half an hour she had succeeded in boiling in an earthenware pot sufficient water to make herself a bowl of coffee, which, it need hardly be said, after her late fare, made her evening meal taste like nectar and ambrosia. Beauty, even, was regaled with bits of bread sopped in the aromatic beverage and enjoyed them immensely. Then she dismissed him, and sat over

the warm stove with her book in hand. She could not read, however, her mind was so occupied with the events of the day and with what might happen to-morrow.

She heard the Dom clock strike ten, and was thinking of seeking the land of forgetfulness when she was surprised to hear the dog's paw signal on the outer door. She wondered whether it was Beauty or Fritz. As she had undone some of her outer garments, in order to sleep more comfortably, and the night being cold, she threw Wendel's white counterpane over her head and shoulders, and went lightly to the door. It was the dog. At first, by the way he ran in, Undine thought he had been making another raid on somebody's larder; but she was mistaken; he brought nothing but his good-will. She took him into the inner room, and gave him a mouthful of bread, and then told him he must go downstairs again. Beauty, however, seemed to have no present intention of parting company. When she opened the door of the inner room to show him out, he went and sat on his haunches beneath the table; then, as she was about to take hold of him, he moved under the sofa and squatted there, and wagged his tail. But after a little coaxing, she got him out, and they went towards the door—Beauty, however, still manifesting great reluctance to go. When they were half way across the outer room, he suddenly stood still and listened, pricking up his ears, as Fifiue could see by a moonbeam which fell on the spot where he stood. He then lowered his muzzle, and showed his teeth, as though he heard something, at the same time uttering a low guttural growl.

Fifiue whispered to him to "hush!" and listened. Her heart almost leapt to her mouth as she distinctly heard a shuffling of feet on the landing outside, and then a hand moving about on the door, as though feeling for the latch. Although almost paralyzed with fear, she remembered that she had not fastened the door after Beauty came in, and made a hasty step towards it, with the intention of slipping the bolt. But she was too late, the door was slowly pushed open, and the figure of a tall man appeared in the doorway. Notwithstanding she trembled so violently that the push of a child might have upset her, yet her mind was so clear that she vividly recollected everything that took place in the brief moment that followed the opening of the door until it closed again.

Above the landing was a narrow window that gave light to the stairs; through this a few pale beams of moonlight fell upon the intruder, and by that light Fifiue knew it was the thing she was constrained to abhor—her husband, for she recognized him despite his transmogrification. She had been compelled, by dire experience, to study him so closely that if he had had more disguises than Proteus, she would have discovered him through all. But while he stood in the tell-tale light, Fifiue had the advantage of the darkness, so that all he saw before him was a white figure, pointing with warning finger and threatening eye to the stairs, or so it appeared to him; the fact being that Fifiue, in her agitation, had thrown up her arms into a protective attitude, as one does instinctively; an attitude sufficiently warning to a terrified man.

Of course the poor woman knew nothing of all this. The first thing she was aware of was her husband's stepping back a pace in evident terror; then his uttering a cry between a howl and a yell, followed by a headlong rush to the stairs, with Beauty at his heels.

Without waiting for further developments, Fifine had Beauty in, and closed the door. Then, having made it fast, her strength failed her, and for a minute or two she could not move from the spot. Leaning against the door, she heard a noise below, but could not make anything out, and was too terrified to open the door again to listen. Every minute she feared that somebody else would be coming up.

Presently she was able to stagger to the other room, and to throw herself into a seat. There she sat, and stared vacantly before her, while the dog licked her hand, which hung listlessly by her side, and tried to gain her attention.

Listening for every sound that occurred in the house; fearing another visit, yet unable to decide upon a course of action, Fifine passed the night in a state of anxiety bordering upon terror. Once she thought she heard a footstep on the stairs; but as nothing came of it, she concluded that it was the effect of her imagination worked upon by her fears. As we know, it was Leitner. Once in the middle depth and silence of the night the idea occurred to her to leave the house, as being no longer safe for her. But then came the thought, whither should she go? Strange that to her mind the only answer was "the river." So utterly alone and isolated can a poor human being become in this drear world.

It may be asked: "But why did she so persistently ignore or forget the kindness she had experienced at the hands of the Bromms? Surely a creature who can treat such people as enemies does not deserve to have friends?" And with considerable justice might it be so said. On the contrary, however, we must bear in mind the fact that it was her husband's apparent intimacy with Claus Bromm on the night of her flight that had caused her to take the sudden resolution she did. Had she on seeing that worthy—whose vile nature had driven her to dare anything, even a suicide's grave, rather than be within reach of him—had she then resolved to await full information before deciding to act, the delay might have ruined all; moreover, it would have argued a *physiologie*—as Balsac would put it—totally different from hers.

According to present appearances, her original fears were justified, else how came her husband to be in the house? Arguing on this basis, Fifine supposed that, like Fritz, the flautist had watched the dog, and had come to the conclusion that the lost one was at the top of the house, and had determined to find out for himself, without at the same time divulging his identity to his spouse; hence his disguise.

Although, as she supposed, he had been terrified by seeing before him, instead of his wife, a grizzly mowing ghost—the thought of which made her smile in spite of her misery, knowing, as she did, his

pot-valiancy, and his inherent poltroonery—yet she could hardly hope that the scaring he had got would cure him of any wish to make further investigations.

Thus, watching and counselling with herself, as we have said, Undine passed the night. She had finally given up the thought of leaving the house before morning, thinking that in all probability she would be stopped at the street door; but the feasibility of quitting the place before the household was fully awake, actively occupied her thoughts. But then, supposing she got away unseen, what was she to do? The little money she had might keep her for a few days; But then who would take her in situated as she was, without luggage, almost without clothes? Her answer was, "No one!" at least no one whose neglect would not be better than their kindness!

She actually thought of the dealer who had taken her fans, and wondered if she might throw herself upon his generosity to assist her in her distress; but then she remembered that she did not know exactly where he lived. Besides, what would he think—what could he think of a woman who presented herself before him in her condition? She had seen enough of the hardness of the world in her brief married life to know that the only answer she would get would be a rebuff.

"Was ever a woman in such a plight?" she exclaimed to herself, pressing her aching temples. Oh, that she had some one to give her counsel! Distracted with the anxiety of her position, Fifine walked about the room until the grey dawn began to appear, when, cold and weary, she threw herself on the sofa and slept; for God gives his sleep even to the most miserable; and those who tax or take to themselves his other bounties, must leave this, like the air and the sunshine, free to all.

When she awoke it was broad day; it presently struck nine by the cathedral clock. Had she slept less soundly she might have heard Leitner ascend the stairs, and try the door; but neither she nor Beauty heard him.

Fifine now contemplated her prospects with much less anxiety than she had done during the night; she even felt almost cheerful. At first she could not make herself out, could not imagine what possessed her, or what change had come upon her. But presently, after she had made her simple toilet, and seated herself at her frugal breakfast, she was enabled to explain her altered spirits by remembering a dream she had had.

It was this: she dreamed that an old man of a sad but not unpleasant countenance appeared by her side and, looking kindly at her, pointed to one of the pictures pasted on the wall by the stove, or rather to some lines that were printed beneath it, and which she had conned over more than once, and so knew what they were. Indeed, it seemed as though she read them as his finger pointed; and when she had done so, and as it were taken his meaning, she thanked him, and he smiled, and went away. She seemed to know that it was old Knütz.

When the dream thus recurred to her mind, Fifine got up from the table, and approached the picture. It represented a poet's home somewhere on the Necker, and beneath were some particulars about his life, and a few brief extracts from his writings. The lines to which her attention was directed were as follows:—

“Be not afraid, but of good courage;
For the gods who brought thee into trouble
Are able to bring thee out again,
And to raise thee to fortune out of much misery.”

CHAPTER XXV.

HUNGER.

The hope raised in Claus Bromm's breast by the Doctor's pious fraud, together with the change of scene and of thought effected by his visit to Schœnberg, had a decidedly beneficial influence upon his mind. During his walk with Adolf, he showed himself much more like his normal self. He talked sadly, and in a minor key—to use a musical similitude—but his conversation was more Claus-Bromm-like, and less like the ramblings of a person half distraught; it had in it something of his quiet reasonableness, and not a little of his genial pedantry. Quite well aware of his recent aberrations, he confessed his weakness, and excused himself by pleading his studious life.

“My life,” he said, “has been one occupied with books rather than with men. I have known the human heart and its passions only by seeing them reflected, as it were, through other men's minds.”

“But is not that the use of books,” suggested Leitner, “to enable us to learn from the experience of others?”

“Yes, yes,” replied Claus; “but it requires a touch of the real thing to bring the teaching home. One may read of pain, and one may read of misery, but where there is no scar there has never been a wound.”

Adolf was pleased to hear him talk in this way, sad as it was, because it augured the return of calmness and reason; he encouraged him, therefore, by suggesting questions and hinting doubts.

“Was it not natural,” he asked, “for every one to be affected by grief?”

“Yes, natural,” he replied, “and human; but it is unreasonable to be so affected by grief, or any other emotion, as to lose due equipoise of mind.”

“Is not any excessive emotion a kind of madness?”

“In a certain sense it is,” replied Claus; “and yet the healthy swing of the pendulum of the emotions is good and healthful: it is only when the beat becomes unrhythmical that the disease and insanity comes in.”

After a pause the old man continued—

“I have been like one beside himself. The intelligent principle in me—the daemon, as Plato would put it—has been obscured, and I have been driven hither and thither by my passions. But I am now calmer, and I hope under the control of my right reason. I

recognize that God put this matter upon me to try me. I thought I was proof against so much unreason; but one does not learn to bear the brunt of battle by going about with a sword by one's side, or epaulettes on one's shoulders. I am like one who has learned the dancer's art instead of the wrestler's, which alone, as Marcus Aurelius tells us, fits one to withstand onsets that are sudden and unexpected."

When they returned to the Prediger-Haus they found the Doctor awaiting them. He was pleased with the Professor's improvement, and drew him into conversation, so as to prevent him brooding on his loss. Claus referred to the incident of the previous night, and cited the "ghost" as a vindication of his theory. At any other time Bleichroder would have proposed an investigation into the cause of the flautist's fright; under existing circumstances, however, he was willing to accept it as a fact for the sake of humoring Bromm's weakness, and was not a little pleased when the Professor announced his intention of taking up his essay again and completing it.

The conversation was peculiarly interesting to Leitner, who was not quite satisfied in his own mind about the ghost theory. As we have seen, he had not, for various reasons, said anything about his visit to the top of the house. The Goldwhistle incident had impressed him very strongly. He was convinced that it was some particularly strong motive that had induced that worthy to visit the house in disguise. The intention was either theft, or a spial with a view to theft; or else it was an attempt to find a place of refuge in case of need. He could not think of any other motive. Nor could he altogether credit the flautist's story of his fright; in fact, it was plain that he could not have seen anything in the garret, for although a ghost might be there, it would hardly be likely to bolt the door after scaring him. Or could it be, as he had intimated, that some one was hiding up there—may-be from justice—and that he had tried to find out the secret with a view to informing. But then, why his fright, or headlong descent? That was a question Leitner could not readily answer. Had the person, if such there was, perhaps seen and threatened him? The whole point was knotty and not easy of solution. Meanwhile the "ghost" had spent but a dreary day. Without food or company, not even that of Beauty (for a reason presently to be given) Fiffne extracted all the entertainment she could out of her book and old Knütz's "Remains."

One of the accomplishments the pupils of the Misses Popplewell's had been assiduously taught was to "draw morals" from what they read; and in the dearth of other means of amusement, poor Undine was fain to have recourse to this lugubrious occupation. It amused her for a little while, however, and made her forget her hunger for short spells.

She drew a goodly number of "morals," and was, in a general way, so pleased with them that she wished she had got a pencil or something to write them down. This was a happy thought and, like Mr. Burnand, she made the most of it. Selecting a bit of charred wood from the stove, she immediately set to work to ornament the margins

of Knütz's wall library with original "morals," somewhat as the Earls of Northampton adorn the outside of their house with Scriptural texts.

As to whether her "morals" were better or worse than any one else under the circumstances would have drawn—except perhaps Mr. Tupper—the reader shall judge. In the brief biography of the poet above mentioned, it was said that he had hoped for a Government appointment as a reward for the loyal support he had given it: "Those," wrote the moralizer, "whose loyalty can be counted on, are not the ones to get preferment, but those whose mouths need shutting. It is as well, therefore, not to be over-loyal until you have got what loyalty is worth!" The same unfortunate poet had gone mad in consequence of a hopeless love affair.

Fifine wrote: "No one can be so near to you, nor so dear to you, as your reason, not even husband nor wife; therefore it is well to be more in love with your own right mind than with any of God's creatures."

Some of the "morals" were odd enough. To an anecdote relating how a playwright had laughed so immoderately at the first representation of his own comedy as to fall into a fit, she appended the remark: "It does not pay to be too funny. Better laugh little and laugh long, than crack your sides."

Having set down so many, Fifine said to herself that there would be more fun in drawing heads than morals, and accordingly sketched the heads of the sisters Popplewell; but having finished them, she heaved a deep sigh, and laying down the charcoal exclaimed—

"Heigh, ho! I believe I could draw a cork better than either at the present moment!"

Poor girl! the inward monitor was getting the better of her. There was relief in store for her, however. All day Beauty and Fritz had been severally watching their chance to run to her assistance, and eventually their efforts were successful, although not until late. Beauty, be it known, had offended Zerafine, and was kept a close prisoner till nearly bed-time, when he was sent to get a mouthful of fresh air. The cause of the offence was that, having spent the night with Fifine, he was supposed to have been gallivanting the Lord knows where; and the suspicion was strengthened by the fact that before he went in, after being dismissed attendance on his mistress, he had taken a run in the street, and so came in with soiled feet. When Zerafine finally relaxed her prison rules, and allowed him to take an airing, he quietly watched his chance and sneaked upstairs, making progress pretty much as the serpent is said to have done in Eden.

When he reached the Grossbein landing, Beauty was surprised to see Fritz standing at the door. His first impulse was to sneak downstairs again, but a dog's second thoughts, as well as a man's, are often the best. Obeying, therefore, his second rather than his first impulse, he rose slightly from his crouching position, wagged his tail, and

went up to Fritz with a sort of waggish expression of both body and face, as though he would say : " I thought I would have a game with you, old fellow, but I see you are spry."

Whether he would have finished with a how-do-you-do bark—which sociable dogs know so well how to give to their human friends—is hard to say, seeing that he was evidently playing a part ; anyway Fritz did not allow him a chance, for he instantly lifted his finger in token of silence, and then pointed significantly towards the garret.

Beauty took the hint at once, and became instantly as grave as a judge. Fritz then took from under his coat a small bag such as are used to hang on the handles of doors for the baker to put the family supply of rolls in when he calls in the morning before the family is astir. It contained something, and was carefully tied up. This he gave to Beauty, patted him on the back, and whispering in his ear " Ffine," pointed upstairs. The poor dumb beast wanted nothing more, but immediately crawled upstairs with his charge. Fritz had the satisfaction to hear the door above gently opened in answer to the dog's scratch and Beauty admitted, whereupon he went in and went to bed happy.

Ffine, half famished and thoroughly wearied out by the efforts she had made to keep up her spirits, had thrown herself upon her couch, determined—as a last resort—to woo " Nature's soft nurse," since her spirits had got beyond nursing. Mothers tell you what a task it is to keep a fretful baby good ; but let me commend to those who find that work hard, the task of endeavouring to keep the spirits good on an empty stomach. Ffine had found it very hard work indeed, and had finally given up in despair. What if she did weep ! Braver hearts than hers have wept under the torture of the gnawing fiend !

" My God ! " she cried in her agony, " what have I done to deserve such misery ? If I leave this place I fall into the hands of a husband—a beast ; if I stay here I die of hunger. Oh, let me not die such a death ! And yet rather such a death a thousand times, than go back again to such a husband ! "

Burying her face in her hands, she wept until the fountain of her tears was dry ; then she became calmer, and was just dropping off into a dose when—could it be?—she heard Beauty's apology for a knock. In an instant she was at the door ; in another, the faithful brute was admitted, and carried bodily to the light.

" Ach, Ihr lieber Himmel ! " exclaimed Ffine, when she had opened the bag : " bread and cheese, and sausage, and, as I live, a bottle of milk ! also a note : ' I could not get up to-day, but I send you something to eat.—FRITZ.' Dear Fritz ! and you, dear old Beauty ! I shall not die of want while I have you two ! "

We may imagine how the poor, famine-pinched creature fell upon the comestibles thus providentially provided, and ate a good meal without once thinking of saying " grace before meat ; " but let us hope she said a double one after.

Next morning two events happened of some importance to our

story. One was—as Wendel informed Leitner whilst he was at breakfast—that the goodman Grossbein had been taken ill at his work, and had been obliged to be conveyed home again. This illness, though apparently of a trifling nature to begin with, proved of sufficient gravity to keep him in bed for nearly three weeks—turning out, indeed, to be rheumatic fever, brought on by his drinking habits.

“The goodman,” said Wendel, “had felt pains in his amputated leg for some days before, which was a sure sign that something was going to happen; something always did when his missing limb hurt him!”

“What do you do with it at such times?” asked the waggish Adolf.

“Oh, nothing! What can one do?” asked Wendel.

“In my country,” said Leitner, “they would make a salve of grease and the dust off a church bell, and rub it therewith.”

“What, the dead and buried leg?” asked Wendel.

“No, the place where it was.”

“Ah, you are laughing at me, Herr Leitner!” replied Wendel.

“It is only my nonsense, Mother Wendoline,” said Leitner.

The other event was that, when the young man reached the house of Glückschild & Co., he was ordered to start for Paris at once on important business. He had barely time to run home and throw a change of clothes into his valise, before it was time for him to hurry off to catch the mid-day train to Strasburg.

(To be continued.)

THE MOWER-MAIDEN.

FROM THE GERMAN OF UHLAND.

GOOD morning, I prithee, Marie! What, up and at work with the sun!

Truest of maidens art thou, well worth to be wooed and be won!

Yea, if the meadow be mown when the sun for the third time shall rise,

Then thou may'st claim him as thine—my son, he shall e'en be the prize!

Thus spake he there to the maid—the master was he of the lands;
Glad is the heart of Marie!—half dazed for a moment she stands:

Oh, how her strength is renewed! A gladdening life she has found;

Swinging the scythe with a will, and laying the swathes on the ground.

Burning the noonday heat falls, and slowly the mowers have made
Weary their way to the spring, seeking for slumber the shade;

Glad in the sunshine, the bees sip honey from flower and stem—

Taking no rest, sweet Marie works on as in wager with them.

Setting, the sun has gone down ; the evening bells call away ;
The neighbours cry out to Marie: " Enough thou hast done for
to-day ! "

Mowers, and herdsman, and flocks, homewards soon pass from the
view,

But Marie, she sharpens her scythe—commencing her labour anew.

Soon falls the dew ; and the moon comes out with the evening star ;
Pleasant the sweet-smelling grass—the nightingale sings from afar ;
Yet Marie thinks not of rest, nor hears what the birds sweetly sing—
Laying the swathes on the ground with powerful, vigorous swing.

Thus on from even till morn ; then from the morn until night ;
Love gives its strength to her arm, and hope keeps her up in the
fight :

Thrice has the bright sun arisen—Marie, aye thy work is well done ;—
Oh, let her weep, for she knows that well the reward she has won !

* * * * *

Yea, a Good Morning, Marie ! In truth, a most diligent maid !
Mown is the meadow right well, and bounteously thou shalt be paid !
What ! thou would'st marry him, girl ! Taked'st in earnest my jest ?
Foolish and credulous, too, Marie, is thy love-smitten breast !

Spake thus the master, and went—went on his way—but Marie
Felt the chill strike to her heart ; then gave way her tremulous knee ;
Lost was her power of speech ; her senses gave way neath the strain—
So was she found by the mowers who came to the hayfield again.

So, for some years she lived on ; silently fading away—
And honey, a drop at a time, that was her food through the day.
Oh, make ye ready a grave, while yet the grasses are green—
So loving a mower as this, surely never was seen. J. P. J.

Facts and Gossip.

THE brain of Turgenieff is said to have weighed 2,012 grammes. The average weight of the human brain is 1,390 grammes. Turgenieff's is said to be the heaviest which has yet been weighed. Cuvier's brain is said to have weighed 1,800 grammes. There are many cases in which an extraordinary intellect has accompanied a heavy brain ; but men whose mental superiority is undoubted by both friend and foe had often brains under the average weight. The cast of Raphael's skull shows that it was smaller than the average British skull ; Cardinal Mezzofanti's head was but of the average size ; Charles Dickens's head was rather smaller than the average ; Lord Byron's head was remarkably small ; Charles Lamb's did not come up to the average weight ; and it is well known that at the death of Gambetta his brain was found to be smaller than that of an ordinary Parisian *ouvrier*.

Mr. L. N. Fowler—it may be interesting to his many English friends to know—has just concluded a successful course of lectures at Orange, New Jersey, the veteran phrenologist having firmly established the science in England, and left an institution by means of which Phrenology will continue to be propagated, thought he might take a holiday, and visit the scenes of his youth and early manhood, and give his countrymen the benefit of his riper experience; for when he thinks of a holiday, it means only a change of labour, or of the sphere of labour.

Miss Jessie A. Fowler, on whom her father's mantle is destined to fall—and it will fall on worthy shoulders—has just returned from the States, whither she accompanied Mr. Fowler, refreshed, invigorated, and with enhanced enthusiasm for the cause she has espoused. She purposes giving, during the winter, a series of lectures on Phrenology, and on a subject she has equally at heart—Temperance. We hope also next year to give a series of articles from her pen.

Answers to Correspondents.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in stamps) of 1s. 9d., for three months' subscription to the MAGAZINE.—ED. P. M.]

J. M. (Belfast).—You have a fairly well-developed head, and should be known for your general intellectual ability. You are adapted to business, having an observing mind, with good judgment, method, and organizing power. But business will not altogether satisfy you, because you have more mind than you can gratify therein. You have considerable literary ability, taste, skill, and imagination; also some musical ability. You would have been in your element in the Church, being of an earnest, devotional turn, and devoted to public work. You have also some wit and imitative power; are quite sociable and domestic. You may be a little short-tempered, and perhaps somewhat too critical. The lady's hair is rather in the way. She seems, however, to have much general strength of character, firmness, decision, caution, discretion, etc. Is very affectionate, and not wanting in general intellectual power and moral strength. She comes of a long-lived family and appears to have a constitution that will serve her into old age. Her general disposition is one of good nature, but she is capable of much temper. Is orderly, neat, and adapted to business, housekeeping, etc.

J. H. H. (Rochdale).—You ask what you are fitted for. Hard work, and plenty of it. Don't be afraid of it, physical or mental, and you will do better than common. You will make friends, and they will help you on. You can succeed fairly well in scholarship, in mechanics, or in business. It does not matter much which you

take hold of, so long as there is scope in it, and you make up your mind to get to the top of the tree, and work for it. Are naturally youthful, hopeful, and rather happy in disposition. Beware of a fair face !

J. A.—You have a good temperament and constitution for work, and are naturally energetic and industrious. You only need to get into the right kind of sphere to make a success of it. You appear to have a well-developed moral brain as a whole, and are naturally honest and reverential, though you may not be discreet and circumspect at all times. You are of a strongly sociable disposition, and perhaps a little too susceptible to the tender passion. Your intellect is a good one. You could make a good scholar ; could succeed in mechanics, or in general business. Are a good observer, have an excellent memory naturally ; are ingenious and very critical. You need to check your feelings of opposition somewhat, restrain temper, and not be so headstrong as you sometimes are.

D. K. (Dumfries).—The photograph of the lady indicates some good and striking qualities of mind. She is of a lively, joyous, hopeful, entertaining turn of mind, very little given to looking on the dark side, not morbid nor morose. She is also of a very affectionate disposition, brimful of love, running over with kindness, and with only enough temper to give snap to her character. She hates slow people, and will want to get them out of her way when in it. A good worker, not afraid of business, a good eater, a good liver, and with half a chance will not trouble the undertaker for fifty or sixty years to come. To a husband who knows what to do with an active, wide-awake woman, and does not expect absolute perfection, she will make a good, warm-hearted wife.

B. B.—This youth has two or three distinguishing qualities. He has unusual intellectual gifts, and with fair chances for development and improvement, he will make a successful man in almost any sphere. He is a keen observer, has a good memory, is good at accounts, and is of an inquisitive turn of mind. He will see everything and forget nothing. He has more than common constructive power, contrivance, and skill in the use of tools. He should be put to some mechanical employment in which he would have full scope for his ingenuity. Is fond of home and greatly attached to animals and pets. He needs to be encouraged in firmness and perseverance, and it would be well if he were a little more reverential.

D. W. (Burslem).—A man with a good many sterling qualities—thought, originality, conversational powers, vivacity, public spirit, benevolence, a youthful spirit, and a geniality of disposition that makes many friends, and keeps them when made ; may be considered eccentric, perhaps, but it is an eccentricity of a good sort. A man of hobbies, possibly a champion of public rights, any way not afraid to espouse an unpopular cause. Very courageous, and apt to speak first, and think afterwards (that is for the second time). Has some wit, considerable imagination, and not a little discursiveness of genius. An odd man, with a great deal of the milk of human kindness.